SHOUT
SHARE
IT

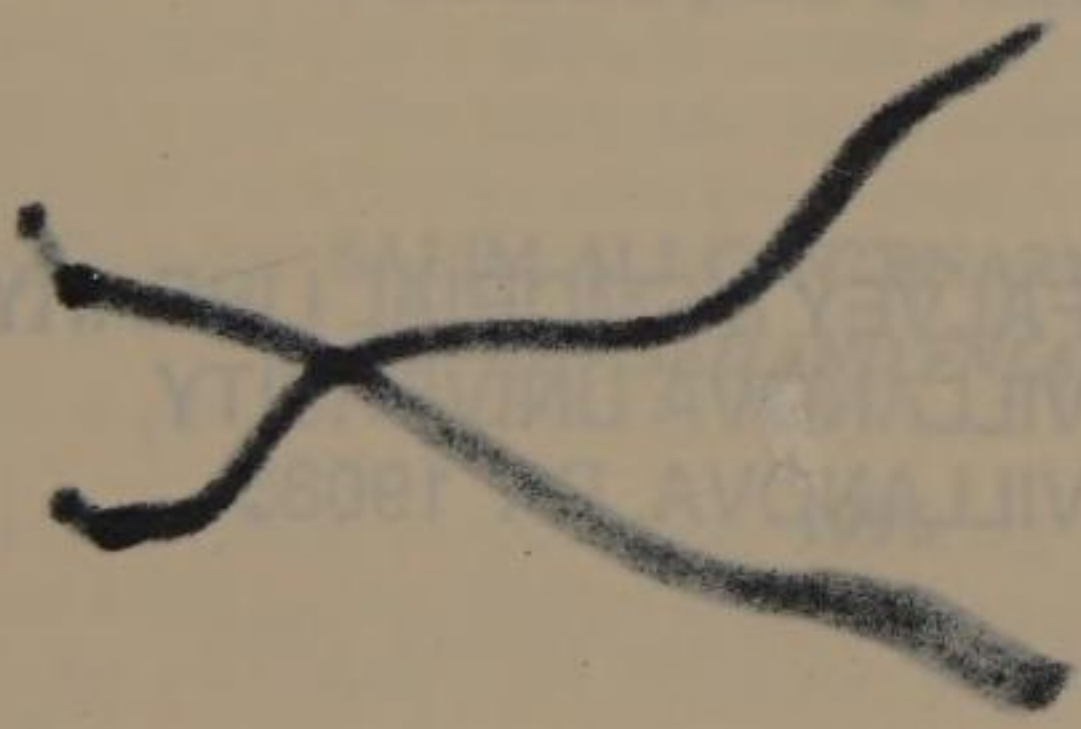
MIGRATION MAP OF INDIAN SUBCONTINENT

1 White Stork
(*Ciconia ciconia*)
2 Pintail
(*Anas acuta*)
3 Common Teal
(*Anas crecca*)
4 Garganey Teal
(*Anas querquedula*)
5 Redcrested Pochard
(*Netta rufina*)
6 Marsh Sandpiper
(*Tringa stagnatilis*)
7 Rosy Pastor
(*Sturnus roseus*)
8 Forest Wagtail
(*Motacilla indica*)

KILOMETRES
MILES

BIRDS NOT TO SCALE

THE BOOK OF INDIAN BIRDS



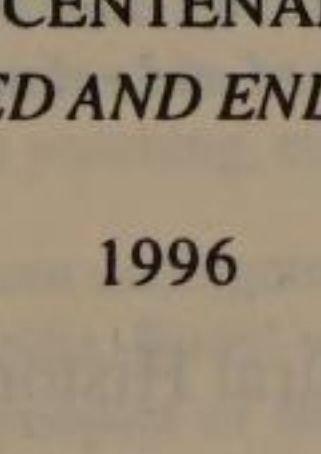
THE BOOK OF INDIAN BIRDS

SÁLIM ALI

With 64 plates in colour by Carl D'Silva (depicting 538 species)
5 in line and 8 plates of colour photographs

SALIM ALI CENTENARY EDITION
REVISED AND ENLARGED

1996



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Preface
(Sálim Ali Birth Centenary Edition)

Dr. Sálim Ali last revised and enlarged the **Book of Indian Birds** in 1979 when the eleventh edition was published. This edition described and illustrated 296 species. The eleventh edition was reprinted five times, the last being in 1992. It was thereafter decided that the Book should be enlarged to cover the common and interesting birds of all biogeographic zones in India to make the book a useful field guide for the Subcontinent. This revised and enlarged edition of the book is being brought out to commemorate the centenary of Dr Sálim Ali and his seminal contribution to the popularisation of the study of birds in India, which began with the publication of the 1st edition of the **Book of Indian Birds** fiftyfive years ago in 1941.

The centenary edition of the book describes 538 species. The descriptions have been compiled from Dr Sálim Ali's writings to maintain the same style and format.

The illustrations are new and have been specially prepared for this edition by the noted bird artist Carl D'Silva except for one plate on the mynas which was prepared by Dr Sálim Ali's favourite bird illustrator Mr. J.P. Irani. The 538 species have been accommodated in 64 plates. Each of the species illustrated in the plates has been provided with brief captions giving status, whether resident or migratory, size and form, key identification characters, habitat and distribution.

The sequence of presentation differs slightly from the earlier editions. The preface to the centenary edition is followed by the preface of the eleventh edition by Dr Sálim Ali and the introductory sections as in the earlier editions. The key section on "How to recognize birds in the field" has been revised and enlarged to include the additional 242 birds described in the centenary edition. This is followed by the 64 captioned plates and the detailed description of the 538 species. The book ends, as did the earlier editions, with Dr Sálim Ali's notes on nesting, migration, bird watching, etc.

The classification of birds has been undergoing periodic upheavals from the time the first edition of the 'Fauna of British India, Birds' was published in 1889-90 by Oates and Blanford. The publication of the **'Synopsis of the Birds of India and Pakistan'** by S. Dillon Ripley in 1961 and the subsequent publication of the **'Handbook of the Birds of India and Pakistan'** by Sálim Ali and Dillon Ripley between 1968-1974 based on the **Synopsis** gave a certain amount of stability to the taxonomy of Indian birds.

Presently the taxonomy of Indian birds is again in turmoil following the publication of **'Distribution and taxonomy of birds of the World'** by C.G. Sibley and B.L. Munro in 1988 based on DNA affiliations. The problem has been compounded by the International Ornithological Congress in its meeting in 1990 taking the common English names of birds given in Sibley and Munro's book as a basis for discussion for standardization of common English names for birds. This is unfortunate as many of the common English names used in the subcontinent for over a century have been summarily thrown overboard.

In this revised edition I have followed the **Synopsis** in the listing of the species as I feel that any change in the classification should await the publication of a revised 3rd edition of the **Handbook** or an equivalent authoritative publication. However to keep the readers abreast of recent developments, the classification now in vogue is given as an appendix to this preface.

In the description of species, the new common names have been given as Alternate Common Names (ACN) and if there has been a change in the scientific name it has been included as New Name (NN). Each species description also has the number it has in Ripley's **Synopsis** thereby linking it to the **Synopsis,** the **Handbook of the Birds of India and Pakistan** and the **Pictorial Guide to the Birds of India and Pakistan.** The book remains a guide to the beginner and a handy reference for the serious amateur as well as for the professional ornithologists.

All the local names available in publications on Indian birds have been included with the hope that knowledgeable members could advise us on which among them should be retained or discarded.

I thank Gayatri Ugra, K P Shirodkar and J P K Menon for their assistance in the preparation of the book.

J C Daniel

CONTENTS

	Pages
Preface to Sálim Ali Birth Centenary Edition by J. C. Daniel	v
Contents	vii
Current Sequence of Orders and Families	ix
Preface to the 11th Edition by Dr Sálim Ali	xii
Changes in Territorial Names	xiv
Introduction	xv
Illustration of a Bird's Plumage and Parts	xxiii
Terms used in description of a Bird's Plumage and Parts	xxiv
Types of Bills	xxv
Types of Feet	xxvi
How to Recognise Birds in the Field	
1 Birds with Prominent Tail	xxvii
2. Birds with Prominent Bills	xxix
3. Birds with Prominent Crest	xxxiii
4. Long-legged Birds	xxxv
5. Bright Coloured Birds	xxxviii
6. Sober Coloured Birds	xlii
Description of 64 Plates	1-64
Description of 538 Birds	65-309
Some Nests and Nesting Behaviour	310
Flight	316
Bird Migration	320
The Usefulness of Birds	326
Bird Watching	331
Index of Species	335

Colour Plates

No.		Facing Page
65.	Mud nest of the cliff swallow	311
	Little Ringed Plover at nest	
66.	Mixed heronry of Painted Storks and White Ibises	312
	Nesting Bronzewinged Jacana	
67.	Hammock nest of the Golden Oriole	313
	A migratory flock of Pintail Ducks	
68.	Great Indian Hornbill	314
	Rufous Woodpecker at carton nest of tree ants	
69.	Flying silhouettes (Black-and-White)	317
70.	Flying silhouettes (Black-and-White)	318
71.	Whitebreasted Kingfisher caught on wing by highspeed photography	325
	Blackheaded Gulls in winter plumage	
72.	Pendulous nest of the Flowerpecker	326
73.	A machan hide for observing nesting birds	327
74.	Redwhiskered Bulbul on *Erythrina*	328
	Whitebacked Vultures at a carcass	

CURRENT SEQUENCE OF ORDERS AND FAMILIES

Order GALLIFORMES

Family MEGAPODIDAE: Megapodes or Scrubfowl
" PHASIANIDAE: Pheasants, Junglefowl, Partridges, Quails

Order ANSERIFORMES

Family DENDROCYGNIDAE: Tree Ducks
" ANATIDAE: Geese, Ducks

Order TURNICIFORMES

Family TURNICIDAE: Bustard and Button Quails

Order PICIFORMES

Family INDICATORIDAE: Honeyguides
" PICIDAE: Woodpeckers
" MEGALAIMIDAE: Barbets

Order BUCEROTIFORMES

Family BUCEROTIDAE: Hornbills

Order UPUPIFORMES

Family UPUPIDAE: Hoopoe

Order TROGONIFORMES

Family TROGONIDAE: Trogons

Order CORACIIFORMES

Family CORACIIDAE: Rollers
" ALCEDINIDAE: Kingfishers (Genera *Alcedo, Ceyx*)
" DACELONIDAE: Kingfishers (Genera *Pelargopsis, Halcyon, Todiramphus*)
" CERYLIDAE: Kingfishers (Genera *Megaceryle, Ceryle*)
" MEROPIDAE: Bee-eaters (Genera *Nyctyornis, Merops*)

Order CUCULIFORMES

Family CUCULIDAE: Cuckoos
" CENTROPODIDAE: Coucals

Order PSITTACIFORMES

Family PSITTACIDAE: Parakeets, Lorikeets

Order APODIFORMES

Family APODIDAE: Swifts
" HEMIPROCNIDAE: Tree Swift

Order STRIGIFORMES

Family TYTONIDAE: Barn & Grass Owls
" STRIGIDAE: Owls
" BATRACHOSTOMIDAE: Frogmouths
" EUROSTOPODIDAE: Eared Nightjar
" CAPRIMULGIDAE: Nightjars

Order COLUMBIFORMES

Family COLUMBIDAE: Pigeons and Doves

Order GRUIFORMES

Family OTIDIDAE: Bustards
" GRUIDAE: Cranes
" HELIORNITHIDAE: Finfoot
" RALLIDAE: Rails, Moorhens, Coot

Order CICONIIFORMES

Family PTEROCLIDIDAE: Sandgrouse
" SCOLOPACIDAE: Snipes, Godwits, Curlew, Stint, Sandpipers
" ROSTRATULIDAE: Painted Snipe
" JACANIDAE: Jacanas
" BURHINIDAE: Thick-Knees (= Stone Plovers)
" CHARADRIDAE: Oystercatcher, Plovers, Lapwings
" GLAREOLIDAE: Crab Plover, Courser, Pratincole
" LARIDAE: Skuas, Skimmer, Gulls, Terns
" ACCIPITRIDAE: Hawks, Kites, Eagles, Falcons, Vultures
" PODICIPEDIDAE: Grebes
" PHAETHONTIDAE: Tropic Birds
" SULIDAE: Boobies
" ANHINGIDAE: Darters
" PHALACROCORACIDAE: Cormorants
" ARDEIDAE: Egrets, Herons, Bitterns
" PHOENICOPTERIDAE: Flamingos
" THRESKIORNITHIDAE: Ibis, Spoonbill
" PELECANIDAE: Pelicans
" CICONIDAE: Storks
" FREGATIDAE: Frigate birds
" GAVIIDAE: Divers
" PROCELLARIDAE: Petrels, Shearwaters

Order PASSERIFORMES

Family PITTIDAE: Pittas
" EURYLAIMIDAE: Broadbills
" IRENIDAE: Fairy Bluebird, Chloropsis
" LANIDAE: Shrikes
" CORVIDAE: Jay, Tree Pies, Magpies, Nutcrackers, Choughs, Crows, Swallow-Shrikes, Orioles, Cuckoo-Shrikes, Minivets, Flycatcher-Shrikes, Fantail, Flycatchers, Drongos, Monarch Flycatchers, Paradise Flycatcher, Ioras, Wood-Shrikes.

Order PASSERIFORMES (*Contd...*)

Family BOMBYCILLIDAE: Waxwings
" CINCLIDAE: Dippers
" MUSCICAPIDAE: Thrushes, Flycatchers, Shortwing, Rubythroat, Chats, Robins, Redstarts, Magpie-Robin, Shama, Forktail, Grandala.
" STURNIDAE: Starlings, Mynas
" SITTIDAE: Nuthatches, Wallcreeper
" CERTHIIDAE: Tree-creeper, Wren
" PARIDAE: Tits
" AEGITHALIDAE: Tits
" HIRUNDINIDAE: Martins, Swallows
" REGULIDAE: Goldcrest
" PYCNONOTIDAE: Bulbuls
" HYPOCOLIDAE: Hypocolius
" CISTICOLIDAE: Warblers
" ZOSTEROPIDAE: White-eye
" SILVIDAE: Warblers, Laughing Thrushes, Babblers, Barwing, Cutia, Shrike-Babbler, Siva, Tit-Babbler, Yuhina, Sibia, Parrotbill, Whitethroat
" ALAUDIDAE: Larks
" NECTARINIDAE: Flowerpeckers, Sunbirds
" PASSERIDAE: Sparrows, Finches, Wagtails, Pipits, Accentors, Bayas, Munias
" FRINGILLIDAE: Chaffinch, Rosefinch, Linnets, Grosbeak, Buntings

Preface

to the 11th edition by Dr Sálim Ali

The publication by the Bombay Natural History Society in 1961 of A SYNOPSIS OF THE BIRDS OF INDIA AND PAKISTAN by S. Dillon Ripley meant an upheaval for bird students in this country accustomed to the older order of classification. The latter had been followed in all important publications on Indian birds since the first edition of the Bird volumes in the FAUNA OF BRITISH INDIA series by Oates and Blanford (1889-1898), including the second edition of that work by E.C. Stuart Baker (1922-1930), POPULAR HANDBOOK OF INDIAN BIRDS by Hugh Whistler (1949), the fifth edition of THE BOOK OF INDIAN BIRDS, and others as well as in periodical literature. The change was bound to cause some inconvenience and confusion at first, but it had become essential in order to bring Indian ornithology in line with the system of classification which, with minor variations, has now come to be internationally accepted and adopted. Ripley's SYNOPSIS and all present-day publications on birds, including those pertaining to our neighbouring areas — the Palaearctic Region, Burma, Thailand, Malaysia, Sri Lanka and others — follow the modern system. Increasing use and familiarity with the new arrangement should soon dispel its initial disadvantages for Indian bird students. Therefore an attempt has been made to modernize the sequence of Orders and Families to accord with the prevailing 'fashion'. This has been largely achieved by appropriate shifting and rearrangement of the plates and text. Despite some remaining inconsistencies, due to the old illustrations having been specially prepared for the superseded classification, the result has been more satisfactory than was at first thought possible. Nevertheless the list showing the new sequence of Orders and Families has been retained from the 8th edition as a corrective where necessary.

The omission of a number of species commonly seen in certain parts of the plains, and likewise in the peninsular hills, was a source of inconvenience to users of the book. By the addition of eight new colour plates depicting 32 extra species and their descriptions it is sought to remove this lacuna in part. Thus the present edition embraces the entire subcontinent south of the Himalayas together with Sri Lanka — hills as well as plains. It now covers 296 birds illustrated in colour and fully described, in addition to several others briefly noticed. The species selected are amongst the more common and readily seen birds in the country, chiefly in the plains and foothills. They represent just under 15 per cent of the total avifauna of India as listed in SYNOPSIS and described and illustrated in the 10 volumes of HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN (including also those of Bangladesh, Nepal, Sikkim, Bhutan and Sri Lanka) by Sálim Ali & S. Dillon Ripley published between 1968 and 1974.

Hindi names of birds have been provided wherever available. I cannot vouch for their correctness in all cases or say how common or well understood they are in general. But it seems obvious, if bird study is to prosper and develop in India, that simple Hindi names should be standardized — if necessary coined or borrowed from other languages — and put into circulation as early as possible under the authority of some recognized central organisation like the Bombay Natural History Society.

The standards of size employed in previous editions have been retained as they were on the whole found satisfactory in practice except in the case of complete strangers to the country and its birds. The size in inches given after each 'standard' should help the latter up to a point.

A	Sparrow	6"	B	Quail	7-8"	C	Bulbul	8"
D	Myna	9"	E	Pigeon	13"	F	Partridge	13"
G	Crow	17"	H	Kite	24"	I	Duck	24"
J	Village hen	18-30"	K	Vulture	36"			

Minus and plus signs are used to indicate whether the bird is smaller or bigger than the standard.

October, 1979 S.A.

Conversion Table
(to metric system)

1	inch	=	2.54	centimetres
10	inches	=	25.4	cm
1	foot	=	30.48	cm
10	feet	=	304.8	cm or 3.048 metres
100	feet	=	30.48	m
1000	feet	=	304.8	m

CHANGES IN TERRITORIAL NAMES

Within recent years many areas of the subcontinent have changed their names and boundaries. The following note is provided to avoid confusion and enable users to keep up with the changes.

Andhra Pradesh: Until 1953 the northern half of Madras State, including the deltas of the Krishna and Godavari rivers and the arid hills of the Eastern Ghats. **Arunachal Pradesh**: 'The Province of the Dawn'. The Himalayas east of Bhutan, including the Dafla, Abor, Miri and Mishmi Hills; before 1972 this area was the North-East Frontier Agency (NEFA) comprising the Kameng, Subansiri, Siang and Luhit frontier divisions. **Assam**: Before 1947 this province included Arunachal Pradesh, Meghalaya, Mizoram and Nagaland (qq.v); in 1972 it was restricted to the Brahmaputra Valley. **Bangladesh**: Constituted in 1971, formerly East Pakistan; besides the Brahmaputra plains it includes the Chittagong Hill Tracts in the south. **Bengal**: Prior to 1947 the Ganges-Brahmaputra delta area, later divided into Bangladesh (q.v.) and West Bengal. **Haryana**: The fertile plains area north and west of Delhi, formerly part of the Punjab (q.v.). **Himachal Pradesh**: 'The Snowy Province'. The Himalayan Hill States were united under this name in 1948, and in 1966 the area was enlarged by the hill regions of the Punjab. **Karnataka**: The official name of Mysore since 1973. **Lakshadweep**: The official name of the Laccadive Islands since 1973. **Meghalaya**: 'Cloud-land'. The Garo, Jaintia, Khasi and Cachar hill districts, constituted a separate State in 1972. **Mizoram**: The Lushai or Mizo Hills area, constituted a separate State in 1972. **Nagaland**: The Naga Hills area, constituted a separatae State in 1962. **NEFA**: Now Arunachal Pradesh (q.v.). **Oudh** (= Awadh): The eastern Gangetic plains, now part of Uttar Pradesh ('Northern Province'), the name given in 1950 to the United Provinces of Agra and Oudh. **Pakistan**: Sind, Baluchistan, Punjab (q.v.), the North-West Frontier Province and Bahawalpur. **Punjab**: Prior to 1947 the whole of the northern plains area watered by the Indus, and its five tributaries, namely Jhelum, Chenab, Ravi, Beas and Sutlej; divided in 1947 into West Punjab (Pakistan) and East Punjab (India). In 1966 East Punjab was further divided into Punjab, Haryana and Himachal Pradesh (qq.v.). **Saurashtra**: The union of Kathiawar States was merged with Bombay in 1956 and since 1960 has been part of Gujarat. **Sri Lanka**: The official name of Ceylon since May 1972. **Tamil Nadu**: The name given to Madras State in 1969.

INTRODUCTION

What is a Bird ?

A BIRD has been described as a 'Feathered Biped'. This description is apt and precise, and can apply to no other animal.

Birds are vertebrate warm-blooded animals, i.e. whose temperature remains more or less constant and independent of the surrounding temperature. This is in contradistinction to Reptiles, Amphibians and Fishes which are cold-blooded, i.e. of temperature that changes with the hotness or coldness of their surroundings.

To assist in maintaining an even temperature, the body of a bird is covered with non-conducting feathers — its chief characteristic — which in details of structure and arrangement reflect the mode of life of the group to which the bird belongs. Compare for example the thick, soft, well-greased covering on the underside of an aquatic bird like a Duck or Grebe with the peculiar, narrow, hairlike, 'double' feathers of the Cassowary to be seen in any zoo. Except in the Flightless Birds such as the last named, the Ostrich and the Penguin (*Ratitae* and *Sphenici*) whose feathers grow more or less evenly over the entire surface of the body, the growth of feathers is restricted only to well-defined patches or tracts known as *pterylae* on various parts of the body, whence they fall over and evenly cover the adjoining naked interspaces or *apteria*. A study of the arrangement of the feather tracts (*pterylosis*) which varies in the different orders, families, and even species, is of great importance in determining the natural relationships of different birds.

The feathers covering the body of a bird fall into 3 classes: (1) the ordinary outside feathers known as Contour feathers or *pennae*, whether covering the body as a whole or specialised as pinions or flight feathers (remiges) or as tail feathers (retrices) which serve as rudder and brake: (2) the fluffy Down feathers or *plumulae* hidden by the Contour feathers and comparable to flannel underclothing, whether confined to nestlings or persisting throughout life; (3) the hair-like Filo-plumes which are hardly seen until the other feathers have been plucked off. They are particularly noticeable, for instance, in a plucked pigeon.

The body temperature of birds, about 38°-44°C., is higher than that of most mammals. Assisted by their non-conducting covering of feathers birds are able to withstand great extremes of climate. As long as they can procure a sufficiency of food supply, or 'fuel' for the system, it makes little material difference to them whether the surrounding temperature is over 60°C. on the burning desert sands or 40°C. below zero in the icy frozen north. Their rate of metabolism is higher than that of mammals. They lack sweat-glands. The extra heat generated by their extreme activity which would, under torrid climatic conditions result in overheating, fever, and death, is eliminated through the lungs and air sacs as fast as it is produced. For one of the functions of the 'air sacs' — a feature peculiar to birds and found in various parts within the body — is to promote internal perspiration. Water vapour diffuses from the blood into these cavities and passes out by way of the lungs, with which they are indirectly connected.

In addition to these two cardinal attributes, warm-bloodedness and insulated feather covering, birds as a class possess certain well-marked characteristics which equip them pre-eminently for a life in the air. In India we have at present no indigenous flightless birds

like the Ostrich or the Penguin, so these need not be considered here. The forelimbs of birds, which correspond to human arms or to the forelegs of quadrupeds, have been evolved to serve as perfect organs of propulsion through the air. Many of their larger bones are hollow and often have air sacs running into them which, as mentioned above, function principally as accessory respiratory organs. This makes for lightness without sacrificing strength, and is a special adaptation to facilitate aerial locomotion. Modifications in the structure of the breast bone, pectoral girdle and other parts of the skeleton, and the enormously developed breast muscles enable a bird to fly in the air. It has been estimated from analogy with birds that a man, to be able to lift himself off the ground by his own effort, would require breast muscles at least 1.2 m deep! There is, moreover, a general tendency for various bones to fuse with each other, conducing to increased rigidity of the skeletal frame — also a factor of great importance in flight. As a whole the perfectly streamlined spindle-shaped body of a bird is designed to offer the minimum resistance to the wind. On account of their warm-bloodedness coupled with these peculiar facilities for locomotion with which Nature has endowed them, birds enjoy a wider distribution on the earth than any other class of animals. They cross ocean barriers and find their way to remote regions and isolated islands, and exist under physical conditions where their cold-blooded relatives must perish. It is also this power of swift and sustained flight that enables birds living in northern lands to migrate periodically over enormous distances in order to escape from the rigours of winter — shortening days and dwindling food supply — to warmer and more hospitable climes.

Birds are believed to have sprung from reptilian ancestors in bygone aeons. At first sight this appears a far-fetched notion, for on the face of it there seems little in common between the grovelling cold-blooded reptile and the graceful, soaring warm-blooded bird. But palaeontological evidence, supplied chiefly by the earliest fossil of an undoubted bird to which we have access — the Archaeopteryx — and modern researches on the skeletal and other characteristics of our present-day birds, tend in a great measure to support this belief. The method of articulation of the skull with the backbone, for instance, and the nucleated red blood corpuscles of the bird are distinctly reptilian in character. To this may be added the fact that birds lay eggs which in many cases closely resemble those of reptiles in appearance and composition, and that the development of the respective embryos up to a point is identical. In the majority of birds scales are present on the tarsus and toes which are identical with the scales of reptiles. In some birds, like sandgrouse and certain eagles and owls, the legs are covered with feathers, a fact which suggests that feathers are modified scales and that the two may be interchangeable. The outer covering of the bills of certain birds, for example the Puffin (*Fractercula arctuca*), is shed annually after breeding in the same way as the slough in reptiles. The periodical moulting of birds is also essentially the same process as the sloughing of reptiles. In short, birds may reasonably be considered to be extremely modified reptiles, and according to the widely accepted classification of the great scientist T.H. Huxley, the two classes together form the division of vertebrates termed Sauropsida.

* * * * *

Of the senses, those of Sight and Hearing are most highly developed in birds, that of Taste is comparatively poor, while Smell is practically absent. In rapid accommodation of the eye, the bird surpasses all other creatures. The focus can be altered from a distant object to a near one almost instantaneously; as an American naturalist puts it, 'in a fraction of time it (the eye) can change itself from a telescope to a microscope'.

* * * * *

For the safety of their eggs and young, birds build nests which may range from a simple scrape in the ground, as of the Lapwing, to such elaborate structures as the compactly woven nest of the Weaver Bird. With rare exceptions they incubate the eggs with the heat of their own bodies and show considerable solicitude for the young until they are able to fend for themselves. Careful experiments suggest however, that in all the seemingly intelligent and purposeful actions of nesting birds, in the solicitude they display for the welfare of their young and in the tactics they employ when the latter are in danger, *instinct* and not intelligence is the primary operating factor. The power of reasoning and the ability to meet new situations and overcome obstacles beyond the simplest, are non-existent. It is good therefore always to bear this in mind when studying birds, and to remember that their actions and behaviour cannot be judged purely by comparison with human standards and emotions.

* * * * *

The total number of bird species known to science as inhabiting the earth today has been estimated as about 8600. If subspecies or geographical races are taken into account the figure would rise to nearly 30,000.

For its size, the erstwhile 'Indian Empire' or 'British India', in which, besides Pakistan and Burma it was customary for biological considerations to include Sri Lanka as well, contains one of the richest and most varied avifaunas on the face of the globe. Covering some 40 degrees of latitude and about the same of longitude, it encloses within its boundaries a vast diversity of climate and physical features. These range from the dry, scorching sandy deserts of Sind and Rajasthan and the humid evergreen rain forests of Assam and the southern Western Ghats, to the region of glaciers and eternal snow in the mighty Himalayas. Smooth wide spaces of depressed river basins, either sandy, dry and sun-scorched or cultivated, or water-logged under a steamy moisture-laden atmosphere (the *terai*) lie along the base of the northern ramparts. The great central Indian and Deccan plateaux succeed the fertile alluvial Gangetic Plain and are flanked on the west by the broken crags and castellated outlines of the ridges of the Western Ghats which overlook the Arabian Sea and continue southward in gentle, smoothly rounded slopes of green uplands — the Nilgiri and other hills of southern India.

This vast subcontinent — two-thirds of Europe in superficial area — with its extensive coastline, affords suitable living conditions to a great variety of feathered inhabitants. The second edition of the FAUNA OF BRITISH INDIA series on Birds enumerated some 2400 forms (species and subspecies). The latest checklist, A SYNOPSIS OF THE BIRDS OF INDIA AND PAKISTAN (which excludes Burma) lists 2061 forms of which over 300 are winter visitors, chiefly from the Palaearctic Region to the north.

The area as a whole falls into the zoogeographical division of the earth known as the Oriental Region. For the sake of convenience it has been split up (Blanford, *Phil. Trans. of the Royal Soc.* Vol. 194, 1901, pp.335-436) into 5 primary subdivisions as under :

a) **The Indo-Gangetic Plain** extending across the whole of northern India from the Arabian Sea to the Bay of Bengal. Its boundaries run up the hill ranges from Karachi to Peshawar, thence along the outer spurs of the Himalayas to Bhutan, and thence roughly southward to east of the Sundarbans. The southern boundary takes a line from the Rann of Kutch to Delhi and from about Agra to Rajmahal whence it goes south to the Bay of Bengal.

b) **Peninsular India**, southward of the above area.

c) **Sri Lanka**.

d) **The Himalayas** including the whole area of the mountain ranges from their foothills up to the limit of tree-growth.

e) **Assam** (and Myanmar).

The Punjab, Sind and Rajasthan, however, have a fauna differing considerably from that of the other parts of India and resembling that found in W. Asia and N. Africa, whilst the animals of the Higher Himalayas (above the tree-line) and the Upper Indus Valley resemble those of central Asia. Both these areas belong to the zoogeographical region which extends over the greater part of Asia and all Europe, known as the Palaearctic.

A still further splitting of the fauna within these broad sub-divisions on the basis of ecological or environmental factors is clearly desirable. A scrutiny shows that there is a close similarity between the fauna and flora of those regions in which the incidence of the Southwest Monsoon is heaviest, namely the Himalayas east of Sikkim and the hilly portions of Assam and Myanmar on the one hand and the southwestern corner of the Indian peninsula, south of about Goa, together with the southwestern portions of Ceylon, on the other. On account of the similar physical configuration of all these areas and their geographical position relative to the strike of the SW monsoon currents, they are areas of heavy rainfall and excessive humidity. These, precisely, are two of the most important factors that regulate the character of the vegetation. Similarity in vegetation is a striking feature of these heavy-rainfall areas. As would be expected, this similarity extends to the insect forms dependent upon the plants, which in turn conduce to similarity in the birds predatory upon them. It has therefore been suggested that all these parallel areas, far-flung though they be, are perhaps better lumped together in one zoogeographical subdivision.

There are certain biological axioms of more or less universal application which are found to hold good in the case of our Indian avifauna also. They are of great importance, particularly in view of the modern practice of recognizing geographical variations and races. A cursory glance through any well-arranged museum collection, or through the description of geographical races in any up-to-date work on systematic ornithology reveals the fact that the largest race of a bird species — this is true of other warm-blooded animals as well — is, with rare exceptions, found inhabiting the cooler part of its distributional range while the smallest inhabits the warmer. Parallel with this axiom is the fact that in the Northern Hemisphere races occupying the cooler (northern) portions of the range of a species tend to lay larger clutches of eggs than those occupying warmer (southern) parts.

Furthermore, it is well known that of a given species the races that inhabit desert areas are always pale or sandy-coloured whereas those living under the influence of heavy rainfall, in well-wooded or humid tracts, tend to be darker in coloration. This is true not only of individual races and species but also of the entire aspect of the avifauna of these tracts as a whole. What the precise factors are that bring about these changes in coloration, and the manner of their operation, we do not know. That humidity has to do with increased pigmentation is clear enough, and it has recently been suggested that the reduced force of ultraviolet rays due to water vapour suspended in the air may account for the darkening.

* * * * *

A few remarks with regard to the classification of birds seem called for in the interest of the beginner. It will be observed that after the English or trivial name of each species in the following pages, there appear two Latin names. The practice of employing a uniform Latin terminology is current throughout the modern scientific world. It is a boon to workers in different countries since it is more or less constant and enables the reader of one nation to understand what the writer of another is talking about. To take an example: What the Englishman calls Hoopoe is Wiedehopf to the German. A Pole knows the bird as something else — doubtless with a good many c's, z's, s's and other consonants in bewildering juxtaposition — while the Russian has yet another equally fantastic looking name for it. A fair working knowledge of a language seldom implies a familiarity with popular names as of birds, for instance, many of which often are of purely local or colloquial applications. Thus it is possible that while the Englishman may follow more or less all he reads in German about the Wiedehopf he may still be left in some doubt as to the exact identity of the bird. The international Latin name *Upupa epops* after the English or Polish or Russian name will leave no doubt as to what species is meant.

In the above combination the first name *Upupa* denotes the Genus of the bird corresponding roughly, in everyday human terms, to the surname. The second name *epops* indicates the Species and corresponds, so to say, to the Christian name. Modern trend of scientific usage has tended to split up the Species further into smaller units called Geographical Races or Subspecies. An example will clarify what this means: It will be admitted that all the peoples living in India are human and belong to one and the same human species. Yet a casual glance is enough to show that the Punjabi is a very different type in build and physiognomy from the dweller in Madras. The differences, though small, are too obvious to be overlooked. They are primarily the result of environment which includes not only climatic conditions of heat and cold, dampness and dryness, but also of diet and many other subtle factors working unceasingly upon the organism in direct or indirect ways. Thus while retaining all our inhabitants under the human species, when you talk of the Madrasi or the Punjabi you automatically recognize the sum total of the differences wrought in either by his particular environment.

A comparative study of birds reveals that there are similar minor but well-marked and readily recognizable differences in size, coloration and other details in those species which range over a wide area and live under diversified natural conditions, or which have been subjected to prolonged isolation as on oceanic islands, or through other causes. It is important for science that those differences should be duly recognized and catalogued since they facilitate the study of speciation and evolution. This recognition is signified by adding a third Latin name to the two already existing, to designate the Geographical Race or Subspecies. Thus, for example the House Crow, *Corvus splendens,* has been subdivided on the basis of constant differences in size and coloration brought about in the different portions of the 'Indian Empire' it occupies as follows:

Corvus splendens splendens (the nominate race), Common House Crow
Corvus splendens zugmayeri, Sind House Crow
Corvus splendens insolens, Burmese House Crow
Corvus splendens protegatus, Ceylon House Crow

Barring restricted areas and particular groups of birds which still require careful collecting and working out, we can now claim to have a sufficiency of dead ornithological material from India in the great museums of the world to satisfy the needs of even an exacting

taxonomist. Most bird lovers in this country possess neither the inclination, training, nor facilities for making any substantial additions to our knowledge of systematics. Speaking generally, therefore, Indian *systematic* ornithology is best left in the hands of the specialist or museum worker who has the necessary material and facilities at his command. Our greatest need today is for careful and rational field work on *living* birds in their natural environment, or what is known as Bird Ecology. It is a virgin field; both the serious student and the intelligent amateur can contribute towards building up this knowledge. A great many biological problems await solution by intensive ecological study. This is a line of field research that may be commended to workers in India; it will afford infinitely more pleasure and is capable of achieving results of much greater value and usefulness than the mere collecting and labelling of skins.

Among the questions which the ornithologist in India is constantly being asked are the following. I have had to face them so frequently, from such a variety of people and in such far-flung corners of the country that it might perhaps be as well to devote a little space to them here.

Q. What is the largest Indian bird, and what the smallest?

A. It is not easy to say which particular one is the largest, but amongst the upper ten are certainly the Sarus Crane and the Himalayan Bearded Vulture or Lammergeier. The former stands the height of a man; the latter has a wing spread of over 8 feet. Amongst our smallest birds are the flowerpeckers, e.g. Tickell's Flowerpecker scarcely bigger than a normal thumb.

Q. What is our most beautiful bird?

A. Difficult to pick out any single species for the highest honour, and depends rather on individual tastes. A large number of birds of many different families, particularly those resident in areas of humid evergreen forest, possess extraordinarily brilliant plumage. As a family, the pheasants occupy a high place for colour and brilliancy of plumage and adornment possessed by the cocks of most species. At the bottom of the size ladder come the sunbirds — tiny creatures about half the size of the House Sparrow or less — whose glistening resplendent plumage scintillating in the bright sunshine as they flit from flower to flower, or dart from one forest glade to another, transforms them into living gems.

Q. What is our commonest bird, and what our rarest?

A. The answer depends largely on what part of the country you live in. But for India as a whole, perhaps the House Crow and the Sparrow would be hard to beat for commonness and abundance. They have followed Man everywhere — up in the hills and out in the desert — wherever his ingenuity has created liveable conditions for himself. Next in abundance come birds like Mynas and Bulbuls which though not wholly commensal on Man are yet quick to profit by his presence and activities.

Perhaps the three rarest birds in India at present are the Mountain Quail (*Ophrysia superciliosa*), Jerdon's Courser (*Cursorius bitorquatus*), and the Pinkheaded Duck (*Rhodonessa caryophyllacea*), all illustrated and described. The first has not been met with since 1876 and all attempts to re-discover them have ended in failure. The second which had not been seen since 1900 was rediscovered in the Lankamalai Sanctuary of Andhra Pradesh in 1986 by Dr Bharat Bhushan, a young scientist of the BNHS working on a

project on endangered and rare species of birds. The fate of the Pinkheaded Duck is also shrouded in mystery and to all appearances the species has become extinct. The last example shot was in 1935, and though it has since been reported off and on as seen by sportsmen, in all the cases investigated these reports have proved unreliable, the bird actually seen being the Redcrested Pochard.

Q. Do birds have a language?

A. They certainly have, if by language is meant that they can communicate with and understand one another. It consists not of speech as we know it, but of simple sounds and actions and enables birds — especially the more sociable ones — to maintain contact amongst themselves and convey simple reactions such as those of pleasure, threat, alarm, invitation, and others. Several of these signals — vocal, behavioural, or a combination of the two — are understood not only by members of the same species but also by other birds generally, e.g. the alarm-notes and behaviour of many on the approach of a marauding hawk. To this extent Man can also claim to understand the language of birds; Solomon himself could hardly have done more. But the structure of a bird's brain suggests a comparatively low level of intelligence and precludes the possibility of their holding regular conversations or expressing views and opinions as we humans are usually so ready to do!

Q. What is our most accomplished songster and talker?

A. Personally, for song I would give the palm to the Greywinged Blackbird (*Turdus boulboul*) of the Himalayas. A number of its close relations, members of the Thrush family, including the Malabar Whistling Thrush and the Shama follow close on its heels.

The best talker amongst our Indian birds is certainly the Hill Myna whose articulation of the human voice and speech is infinitely clearer and truer than that of the parakeets. The latter enjoy a wider reputation and are more generally kept as cage birds because they can be more readily procured.

Q How long does a bird live?

A. The age-potential, or the age to which a bird is capable of living, of course varies according to species and the environment and conditions under which it lives. Reliable data concerning the life-span of wild birds in a state of nature are very difficult to obtain. It is only possible by the method of marking individual birds, particularly as nestlings. Most of the figures of age available are from birds in captivity and therefore living under somewhat unnatural conditions. It is known that within a group of related forms the larger the bird the longer its life, but outside related groups size does not seem to matter a great deal. An ostrich in captivity has lived for 40 years; a raven to 69 and another to 50. Passerine birds of about Sparrow size have occasionally reached 25 years, although normally their span is 5 to 8. A vulture attained 52, a horned owl 68, swan 25, pigeon 22 to 35, peacock 20. The longest lived wild birds in a natural state, as determined by the marking method, are: herring gull 36 years, oriole 8, pintail duck at least 13, grey heron about 16, blackbird 10, curlew 31½, kite 25-3/4, and swallow 16+.

The common belief that crows are immortal is of course groundless, while there seems no proof for the popular assertion that vultures 'score centuries'.

Finally, to those desiring a closer acquaintance with birds in general, no better or more readable book can be recommended than THE BIOLOGY OF BIRDS by J.A. Thomson, but this now out of print. Two other useful books on general ornithology, though largely using American examples, are NATURAL HISTORY OF BIRDS by Leonard W. Wing (The Ronald Press Co., New York) and AN INTRODUCTION TO ORNITHOLOGY by George J. Wallace (The Macmillan Co., New York). For India in particular, the excellent serial on 'The Study of Indian Birds' by Hugh Whistler published in the *Journal of the Bombay Natural History Society*, and his POPULAR HANDBOOK OF INDIAN BIRDS are useful guides. Inglis and Fletcher's BIRDS OF AN INDIAN GARDEN is good and describes and illustrates a number of the commoner species. Douglas Dewar's series of books on Indian birds will be found helpful, and no one should be without EHA's (E H Aitken) classic little COMMON BIRDS OF BOMBAY which, despite its title, covers a good many of the commoner birds found in India[1]. For masterly touch of matter and charm of style EHA is unapproachable. To the advanced student the 8 volumes of the 2nd edition of the FAUNA OF BRITISH INDIA series on Birds by Stuart Baker and the 4 companion volumes of his NIDIFICATION OF BIRDS OF THE INDIAN EMPIRE must remain indispensable for a long time to come. To these must now be added HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN in ten volumes, by Sálim Ali and S. Dillon Ripley (Oxford University Press). This work is, in effect, a revision and updating of Stuart and field identification clues for practically every bird found within our limits.

[1] A new edition of this was published in 1946 by Thacker & Co. Ltd., Bombay, under the title COMMON BIRDS OF INDIA with notes by Sálim Ali and a biographical sketch of the author by W. T. Loke.

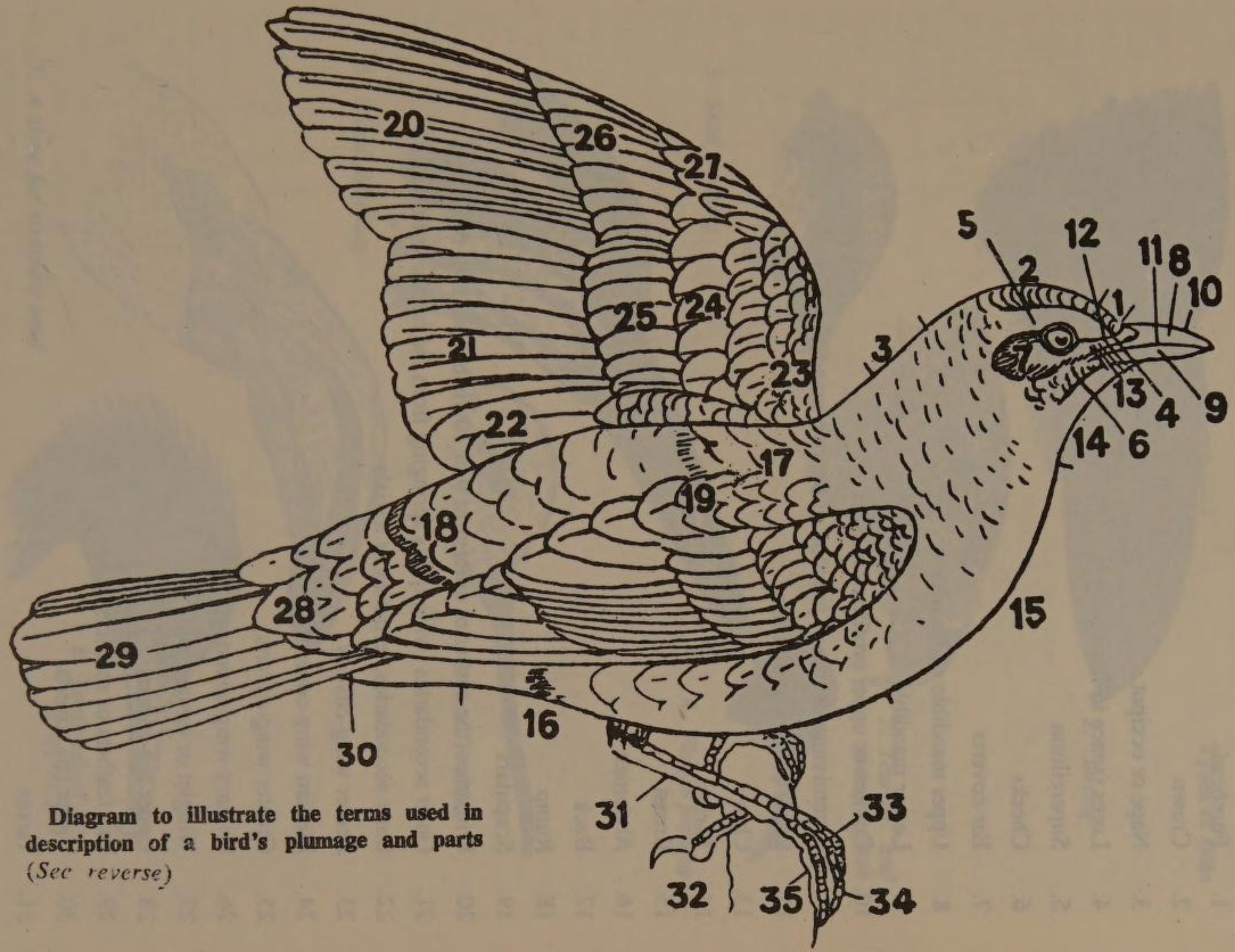


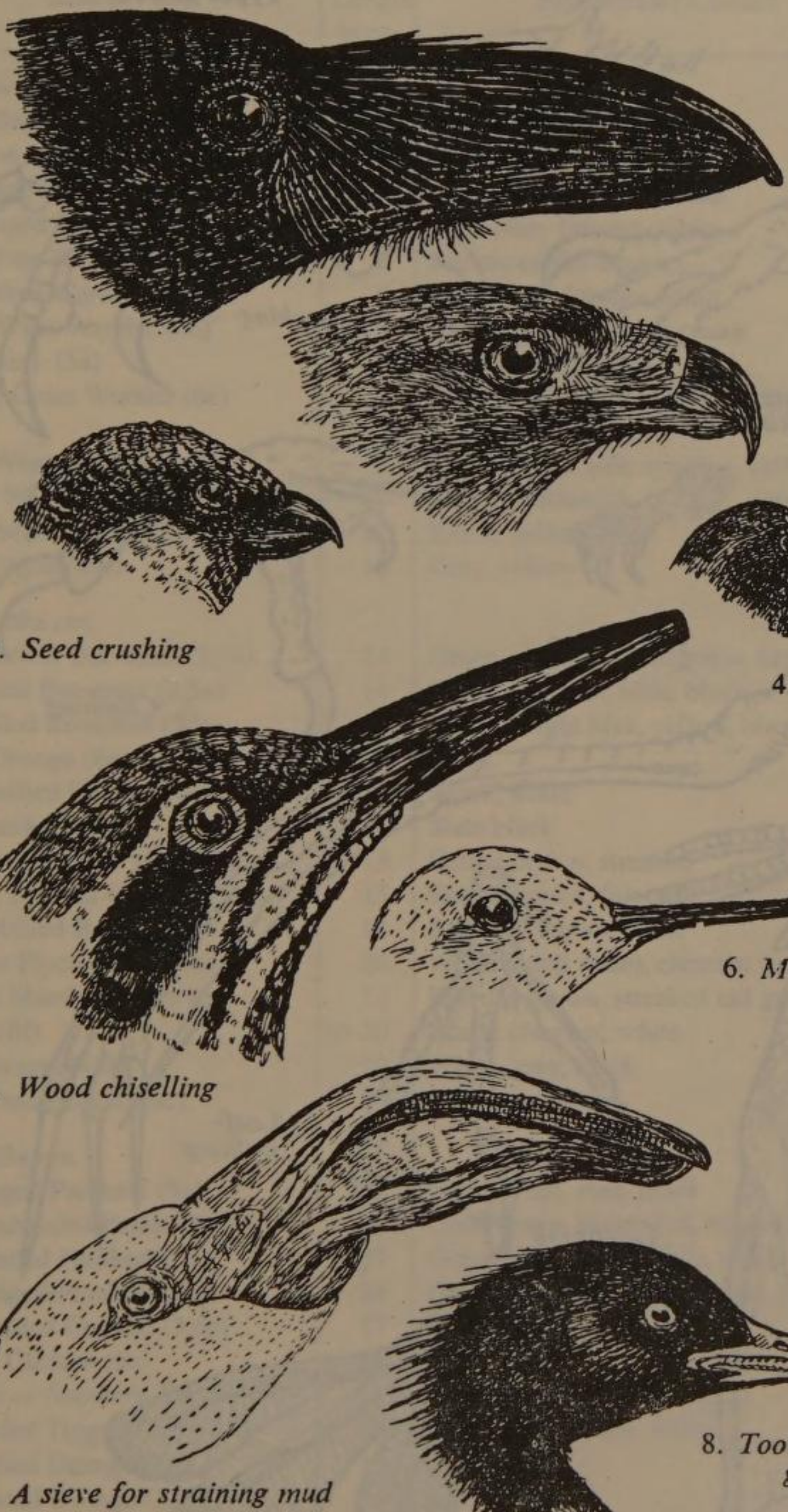
Diagram to illustrate the terms used in description of a bird's plumage and parts

(See reverse)

TERMS USED IN DESCRIPTION OF A BIRD'S PLUMAGE AND PARTS

1. Forehead
2. Crown
3. Nape or occiput
4. Lores (space in front of eye)
5. Supercilium
6. Cheeks
7. Ear-coverts
8. Upper mandible or maxilla
9. Lower mandible
10. Culmen or upper profile of maxilla
11. Commissure or line of junction of the two mandibles
12. Rictal bristles or vibrissae
13. Chin
14. Throat
15. Breast
16. Abdomen
17. Back
18. Rump
19. Scapulars
20. Primaries (the earlier or outermost 9 or 10 visible quills of the wing)
21. Outer secondaries (wing-quills springing from the radius and ulna)
22. Inner secondaries, tertiaries or tertials
23. Lesser wing-coverts
24. Median wing-coverts
25. Greater wing-coverts
26. Primary wing-coverts
27. Winglet or bastard wing
28. Upper tail-coverts
29. Tail feathers or rectrices
30. Under tail-coverts
31. Tarsus
32. Hind toe or first toe, or hallux
33. Inner or second toe
34. Middle or third toe
35. Outer or fourth toe

Types of Bills



1. *Cutting*

2. *Tearing and piercing flesh*

3. *Seed crushing*

4. *Flower probing*

5. *Wood chiselling*

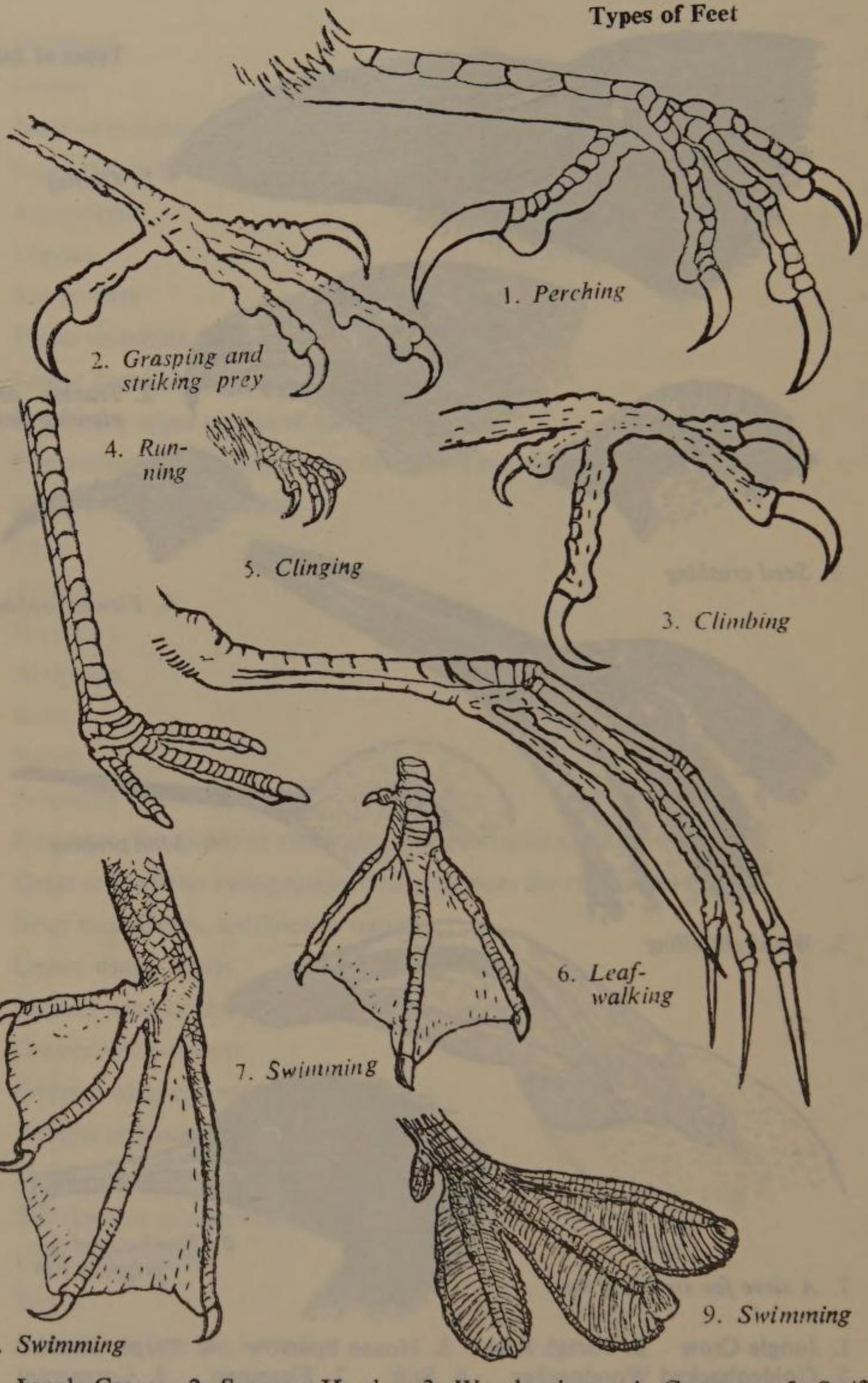
6. *Mud probing*

7. *A sieve for straining mud*

8. *Tooth-edged for gripping fish*

1. Jungle Crow 2. Pariah Kite 3. House Sparrow 4. Purple Sunbird
5. Goldenbacked Woodpecker 6. Stilt 7. Flamingo 8. Cormorant

Types of Feet



1. *Perching*
2. *Grasping and striking prey*
3. *Climbing*
4. *Running*
5. *Clinging*
6. *Leaf-walking*
7. *Swimming*
8. *Swimming*
9. *Swimming*

1. Jungle Crow 2. Sparrow-Hawk 3. Woodpecker 4. Courser 5. Swift
6. Jaçana 7. Gull 8. Cormorant 9. Dabchick or Grebe

HOW TO RECOGNISE BIRDS IN THE FIELD

1. Birds with prominent tail

Size & Form	Tail Length in cm.	Predominant Colours	(Plate) & Species No.
Sparrow 15± cm.			
Green Bee-eater (2, 5a)	14	Green, rusty	(38) 295
Common Swallow (5e)	12	Blue, white, ferruginous	(44) 342
Wiretailed Swallow (5e)	17	Steel blue, white, chestnut	(44) 344
Redrumped Swallow (5e)	10	Steel blue, fulvous, white	(44) 346
Plain Wren Warbler (6e)	6	Rufous earthy brown	(57) 455
Ashy Wren Warbler (6d)	6	Ashy slate, fulvous white	(57) 456
Jungle Wren Warbler (6e)	9	Earthy brown, white, cream	(57) 457
Tailor Bird (5a)	4-8	Olive green, white	(57) 459
Bristled Grass Warbler (6e)	9	Fulvous brown, streaked dark brown, pale supercilium	(58) 461
Forest Wagtail (6e)	7	Olive brown, pale eye ring, yellow bands	(62) 502
Yellow Wagtail (5b)	10	Chiefly yellowish	(62) 503
Yellowheaded Wagtail (5b)	10	Black, yellow, grey	(62) 504
Grey Wagtail (6d)	10	Grey, yellow	(62) 505
Bulbul 20± cm.			
Bluecheeked Bee-eater (2,5a)	14	Green, chestnut, blue-green, black	(38) 293
Bluetailed Bee-eater (2,5a)	14	Green, chestnut, blue, black	(38) 294
Longtailed Broadbill (5d)	13	Green, bright blue, yellow, black	(42) 327
Black Drongo (6a)	17	Black	(46) 356
Whitebellied Drongo (6c)	15	Black, white	(46) 358
Grey Drongo (6a)	7	Slate black	(46) 357
Common Babbler (6e)	13	Earthy brown, streaked	(53) 416
Striated Babbler (6e)	13	Earthy brown, fulvous	(53) 417
Slenderbilled Babbler (6e)	13	Reddish, brown, white	(53) 418
Paradise Flycatcher (3,6b)	20	White (adult male), chestnut (immature)	(56) 450
Striated Marsh Warbler (6e)	13	Fulvous brown, streaked tail graduated	(58) 462
Shama (6f)	16-20	Black, chestnut, white	(59) 476
White Wagtail (6b)	10	White, grey, black	(62) 506
Large Pied Wagtail (6c)	13	Black and white	(62) 507
Myna 23± cm.			
Roseringed Parakeet (5a)	23	Grass green, rose, black	(31) 237
Blossomheaded Parakeet (5a)	24	Grass green, bluish red, maroon, yellow	(31) 239
Slatyheaded Parakeet (5a)	27	Grass green, bluish slate, black, red, blue	(31) 240
Bluewinged Parakeet (5a)	24	Grass green, blue-green, blue, yellow	(31) 241
Pied Crested Cuckoo (3,6c)	17	Black, white	(32) 244
Drongo Cuckoo (6a)	15	Black, white	(33) 250
Malabar or Southern Trogon (5d)	18	Black, red, brown, white	(37) 281
Redheaded Trogon (5c)	20	Red, brown, black, white	(37) 282
Crowbilled Drongo (6a)	13	Black	(46) 359
Haircrested Drongo (3, 6a)	14	Black	(46) 361
Racket-tailed Drongo (3, 6a)	37	Black	(46) 362
Green Magpie (5a)	21	Green, red, white	(48) 375
Tree Pie (6e)	29	Chestnut brown, grey	(48) 377
Whitebellied Tree Pie (6e)	32	Chestnut, white	(48) 378
Himalayan Tree Pie (6e)	26	Sooty brown, ashy grey	(48) 379

The numbers in brackets after name of species are to facilitate cross reference to these keys

1. Birds with prominent tail *(Contd.)*

Size & Form	Tail Length in cm.	Predominant Colours	(Plate) & Species No.
Myna 23± cm.			
Large Grey Babbler (6e)	13	Greyish brown, mottled	(53) 419
Jungle Babbler (6e)	11	Earthy brown	(53) 421
Pigeon 33± cm.			
Indian Sandgrouse (6e)	6+	Sandy, black	(29) 216
Pintailed Green Pigeon (5a)	21	Yellowish green	(29) 219
Bartailed Cuckoo-Dove (6e)	21	Reddish brown, lilac purple, black	(30) 229
Large Indian Parakeet (5a)	36	Grass green, maroon, pink, black	(31) 236
Indian Redbreasted Parakeet (5a)		Pink, plum red, yellow, blue green	(31) 238
Large Greenbilled Malkoha (6d)	38	Ashy grey, white, greenish black	(33) 252
Yellowbilled Blue Magpie (5e)	43	Blue, black, white	(48) 376
Partridge 33± cm.			
Pheasant tailed Jaçana (4, 6e) (breeding male)	32	White, chocolate brown	(20) 157
Crow 43± cm.			
Redwinged Crested Cuckoo (3,6c)	24	Black, white, red	(32) 243
Koel (6a,6e)	20	Black (male), brown (female)	(33) 251
Small Greenbilled Malkoha (6d)	24	Ashy grey, white, rufous	(33) 253
Sirkeer Cuckoo (6e)	23	Brown, white, black	(33) 254
Crow Pheasant (6a)	26	Black, chestnut	(33) 255
Lesser Crow-Pheasant (6a)	21	Black, chestnut, white	(33) 256
Kite 61± cm.			
Grey Hornbill (2, 6d)	29	Slaty grey	(39) 301
Malabar Grey Hornbill (2,6d)	23	Slaty grey	(39) 302
Duck 61± cm.			
Darter (6a)	22	Black, brown, silvery grey	(1) 9
Village Hen 46-76± cm.			
Red Jungle fowl (cock) (5c)	45	Orange-red, chestnut, black	(18) 133
Grey Jungle fowl (cock) (6d)	45	Grey, brownish-yellow, black	(18) 134
Peacock (5d), Peahen (6e)	120	Metallic blue, green, brown	(18) 135
Vulture 91± cm.			
Rufousnecked Hornbill (2,3,6c)	45	Black, rufous, maroon, white	(39) 303
Wreathed Hornbill (2, 6c)	33	Black, white, chocolate brown	(39) 304
Indian Pied Hornbill (2, 6c)	31	Black, white	(39) 305
Malabar Pied Hornbill (2, 6c)	33	Black, white	(39) 306
Great Pied Hornbill (2,6c)	43	Black, white	(39) 307

1a. Birds without tail or with very short tail

Size & Form	Predominant Colours	(Plate) & Species No.
Duck 61± cm.		
Great Crested Grebe	Greyish brown and white, black ear tufts	(1) 1
Pigeon 33± cm.		
Little Grebe or Dabchick	Brown and smoky white	(1) 2

HOW TO RECOGNISE BIRDS IN THE FIELD

2. Birds with Prominent Bills

Size & Form	Length of Bill in cm.	Shape and Colour of Bill	Predominant Colours of the Bird	(Plate) & Species No.
Sparrow 15± cm.				
Small Blue Kingfisher (5d)	5	Straight, pointed, black	Blue, green, rusty	(37) 284
Blue-eared Kingfisher (5d)	5	Straight, pointed, black	Purplish blue, rusty	(37) 285
Three-toed Kingfisher (5d)	3.7	Straight, pointed, coral red	Blue, green, rusty	(37) 286
Green Bee-eater (1, 5a)	3	Curved, slender, brownish black,	Green, rusty	(38) 295
Purplerumped Sunbird (5d)	2.5	Curved, black	Crimson, green, purplish, yellow	(63) 513
Small Sunbird	1.7	Curved, black	Maroon, yellow, greyish white	(63) 514
Purple Sunbird (6a)	2.2	Curved, brownish black	Metallic blue, purple	(63) 516
Loten's Sunbird (5d)	3	Curved, black	Black with metallic green, purple sheen, crimson, yellow	(63) 515
Yellowbacked Sunbird (5d)	2.3	Curved, black	Purple, green, crimson, yellow	(63) 517
Females of all sunbirds	1.7-3	Curved, black	Olive brown, yellow	(63) —
Little Spiderhunter (6e)	3.7	Curved, black	Olive, yellow, brown, white	(63) 518
Streaked Spiderhunter (6e)	4.7	Curved, black	Boldly streaked yellowish olive, yellow legs	(63) 519
Quail 17-20± cm.				
Terek or Avocet Sandpiper (6e)	7	Slender, upcurved, both mandibles grooved. Black or dark brown. Yellowish orange at base	Greyish brown, white	(25) 178
Pintail Snipe (6e)	6±	Horny brown, pale greenish at base	Dark brown, rufous, black	(24) 181
Common or Fantail Snipe (6e)	7	Straight, slender, brown	As above, but paler	(24) 182
Jack Snipe (6e)	4±	Straight, slender, horny brown, black at tip	Dark brown, rufous, black	(24) 183
Curlew Sandpiper (6e)	4±	Black, slender, downcurved	Greyish brown, mottled, white	(26) 189
Painted Snipe (5d)	5	Straight, slender, greenish brown	Metallic olive green, white buff, black	(24) 192
Bulbul 20± cm.				
Bluecheeked Bee-eater (1,5a)	4.4	Curved, black, slender	Green, chestnut, black	(38) 293
Chestnutheaded Bee-eater (5a)	4	Curved, black	Green, chestnut	(38) 292
Bluetailed Bee-eater (1,5a)	4.8	Curved, black, slender	Green, chestnut, blue	(38) 294

2. Birds with Prominent Bills (*Contd.*)

Size & Form	Length of Bill in cm.	Shape and Colour of Bill	Predominant Colours of the Bird	(Plate) & Species No.
Myna 23± cm.				
Pied Kingfisher (6c)	7±	Straight, pointed, black	Pied black and white	(37) 283
Ruddy Kingfisher (6e)	6	Straight, pointed, bright red	Cinnamon, white	(37) 288
Whitebreasted Kingfisher (5d)	7.5	Straight, pointed, red	Blue, chocolate, brown, white	(37) 289
Blackcapped Kingfisher (5e)	7.5	Straight, pointed, coral red	Cobalt blue, black, rusty white	(37) 290
Whitecollared Kingfisher (5e)	7	Straight, pointed, black	Greenish blue, white, black	(37) 291
Hoopoe (3, 6e)	6	Slender, slight curved	Fawn, black, white	(38) 300
Pigeon 33± cm.				
Brownheaded Stork-billed Kingfisher (5e)	10	Straight, pointed, compressed blood-red	Pale blue, buff brown	(37) 287
Bluebearded Bee-eater (5a)	5.6	Curved, slender, black	Green, blue, buff	(38) 296
Partridge 33± cm.				
Oystercatcher (4,6c)	7±	Straight, snipe like blunt tipped orange-red	Pied black and white	(22) 159
Woodcock (6e)	8	Horny brown, tinged with purple at base of lower mandible	Mottled brown, black and white	(24) 184
Blackwinged Stilt (4, 6c)	7±	Straight, slender, black	White, grey, brown, black	(22) 193
Avocet (4,6c)	5+	Upcurved, slender, black	White and black	(22) 194
Crab Plover (4, 6c)	6	Heavy, black, tern-like	Black and white	(22) 195
Crow 43± cm.				
Indian Skimmer (6c)	10	Flat, knife blade-like with upper mandible shorter, orange yellow	Pied black and white	(27) 215
Kite 61± cm.				
Common Grey Hornbill (1, 6d)	10	Curved, heavy, horn-like casque, black and white	Slaty grey	(39) 301
Malabar Grey Hornbill (1 6d)	11	Curved, heavy, horny yellow with brownish red tinge except tip	Slaty grey	(39) 302

2. Birds with Prominent Bills (*Contd.*)

Size & Form	Length of Bill in cm.	Shape and Colour of Bill	Predominant Colours of the Bird	(Plate) & Species No.
Duck 61± cm.				
Openbill Stork (4, 6c)	17	Reddish black with gap between mandibles	Greyish white, black	(5) 30
Spoonbill (4, 6b)	20	Spatulate, brown and yellow	White	(6) 40
Lesser Flamingo (4,5c)	10±	Dark lake-red with black tip. Upper mandible not overlapping	Dark rose pink	(6) 42
Village Hen 46-76± cm.				
Little Green Heron (4)	7	Greenish yellow and black	Glistening greenish black, ash grey, white	(3) 15
Pond Heron (4,6e)	6	Straight, pointed, brown and yellow	Earthy brown, white	(3) 16
Cattle Egret (4, 6b)	5/6	Straight, pointed, yellow	Golden yellow and white (breeding), white (non-breeding)	(3) 18
Little Egret (4,6b)	10	Straight, pointed, black	White	(3) 20
Median Egret (4,6b)	10	Black, yellow at base	White	(3) 19
Indian Reef Heron (4,6b,d)	10	Straight, pointed, brownish, yellow	Bluish slaty or white	(3) 21
Night Heron (4,6d,6e)	6.5- 8	Straight, heavy, black and yellow	Ashy grey, black (adult)	(3) 22
Tiger Bittern (4)	5	Dagger shaped, yellow with horny brown tip	Greyish black and chestnut, cinnamon	(4) 23
Little Bittern (4)	5	Bill yellow, creamy or purplish. Dagger-like	Black and white	(4) 24
Chestnut Bittern (4,6e)	7	Dagger-like, black	Chestnut, ochraceous	(4) 25
Yellow Bittern (4,6e)	5	Dagger-like, horny brown	Yellowish fawn black, brown, rufous, chestnut	(4) 26
Black Bittern (4,6f)	7	Dagger-like, reddish horny, yellowish at tip	Black and buff	(4) 27
Bittern (4,6e)	7	Dagger-like. Greenish yellow-black, brown at tip	Tawny buff and black	(4) 28
White Ibis (4, 6b)	17±	Curved, stout, black	White	(6) 37
Black Ibis (4, 6a)	15	Curved, slender, black	Black	(6) 38
Glossy Ibis (4, 6a)	14	Curved, slender, dark livid, olive grey or plumbeous brown	Black	(6) 39
Whimbrel (6e)	7	Curved, slender, brown	Sandy brown, streaked black and fulvous	(24) 169
Curlew (6e)	15	Curved, slender, brown	Sandy brown, streaked black	(24) 170
Black-tailed Godwit (6e)	10	Slender, straight, orange and black	Brown	(24) 171
Bar-tailed Godwit (6e)		Slender, slightly upcurved, pinkish flesh, horny brown, blackish on terminal half	Brown	(24) 172
Great Stone Plover (4)	8+	Stout, upcurved black and yellow	Greyish sandy black and white	(22) 197

HOW TO RECOGNISE BIRDS IN THE FIELD

2. Birds with Prominent Bills (*Contd.*)

Size & Form in cm.	Length of Bill	Shape and Colour of Bill	Predominant Colours of the Bird	(Plate) & Species No.
Vulture 91± cm.				
Rosy or White Pelican (6b)	45	Long, flat with elastic bag below	White	(2) 3
Spotted billed Pelican (3,6b)	35	Long, flat with elastic bag below, spotted	Brownish white	(2) 4
Dalmatian Pelican (3,6b)	45	Long, flat with elastic bag below	Largely white	(2) 5
Great whitebellied Heron (4,6b)	15-17	Straight dagger-like, blackish	Largely white, slaty black	(2) 10
Giant Heron (4)	19	As in other herons	Chestnut, cinnamon	(2) 11
Grey Heron (6d)	10-13	Straight dagger-like, yellow bill	Ashy, grey, white, black	(2) 12
Purple Heron (4)	11-14	Dagger-like as in other herons	Purplish slaty	(2) 13
Large Egret (4,6b)	11	Dagger-like	White	(2) 14
Painted Stork (4, 6c)	25	Heavy, yellow decurved at tip	White, black, rose-pink	(5) 29
White Stork (4, 6c)	20±	Straight, heavy, red	White, black	(5) 32
Whitenecked Stork (4, 6c)	17±	Straight, heavy, black	Black, white	(5) 31
Black Stork (4, 6c)	16-19	Straight, heavy, red, pale at tip	Black, white	(5) 33
Blacknecked Stork (4, 6c)	30	Straight, heavy, black	Metallic black, white	(5) 34
Adjutant Stork (4,6c)	32±	Heavy, yellow, 4-sided, wedge-shaped	Black, grey, white	(5) 35
Lesser Adjutant (4,6c)	30	Massive, yellowish, wedge-shaped	Black, white	(5) 36
Flamingo (4, 6b)	16	Red, heavy, down-curved (broken) sieve	Rosy white, crimson	(6) 41
Common Crane (4,6d)	11	Dingy green with yellowish tip	Grey	(19) 139
Sarus Crane (4,6d)	18	Pale greenish horny	Grey	(19) 140
Siberian Crane (4, 6b)	19	Orange brown, dull pinkish flesh	White	(19) 141
Rufousnecked Hornbill (1,3,6c)	24	Heavy, horn shaped without casque, ridged at base, yellow	Rufous, maroon, black	(39) 303
Wreathed Hornbill (1, 6c)	21	Heavy, with transverse ridges at base Yellow ridge furrows reddish	Black, white, chestnut	(39) 304
Indian Pied Hornbill (1,6c)	17-22	Massive, yellow and black bill, with a high, single pointed ridge like casque	Black, white	(39) 305
Malabar Pied Hornbill (1,6c)	17			(39) 306
Great Pied Hornbill (1,6c)	37	Massive, horn-shaped, yellow and black bill, large concave shaped casque	Black, white	(39) 307

HOW TO RECOGNISE BIRDS IN THE FIELD

3. Birds with prominent crest

Size & Form	Principal Colours	Associated Colours	(Plate) & Species No.
Sparrow 15± cm.			
Crested Lark (6e)	Greyish brown	White	(43) 338
Sykes's Crested Lark (6e)	Rufous brown		(43) 339
Yellowcheeked Tit (5b)	Yellow, black	White	(61) 495
Crested Bunting (6f)	Black, chestnut		(64) 538
Bulbul 20± cm.			
Crested Tree Swift (6d)	Blue-grey	White, chestnut	(36) 280
Blackheaded Yellow Bulbul (5b)	Olive green, black	Yellow	(50) 400
Redwhiskered Bulbul (6e)	Brown, white	Red, black	(51) 402
Whitecheeked Bulbul (6e)	Brown, white	Yellow, black	(51) 403
Striated Green Bulbul (5a)	Olive green	White, yellow, brown	(51) 405
Black Bulbul (6d)	Slaty grey	Bill and legs red	(51) 409
Blackcapped Sibia (5d)	Rufous, cinnamon, black	White, greyish brown	(53) 433
Paradise Flycatcher (1,6b)	White, chestnut		(56) 450
Myna 23± cm.			
Pied Crested Cuckoo (1,6c)	Black, white		(32) 244
Hoopoe (2,6e)	Fawn	Black, white	(38) 300
Haircrested Drongo (1,6a)	Black		(46) 361
Racket-tailed Drongo (1,6a)	Black		(46) 362
Brahminy Myna (6e)	Reddish fawn	Grey, Black	(47) 366
Rosy Pastor (5c)	Pale pink, black		(47) 367
Goldcrested Myna (6f)	Black	Gold, white	(47) 373
Whitecrested Laughing Thrush (6e)	Olive brown	Black	(54) 425

3. Birds with prominent crest (*Contd.*)

Size & Form	Principal Colours	Associated Colours	(Plate) & Species No.
Pigeon 33± cm.			
Indian Blackcrested Baza (6c)	Black	White, chestnut	(11) 73
Crow 43± cm.			
Blyth's Baza (6e)	Brown and black	White, rufous brown	(11) 72
Crested Goshawk (6e)	Brown and white	Blackish grey, rufous brown	(11) 78
Redwinged Crested Cuckoo (1,6c)	Black, white, red		(32) 243
Kite 61± cm.			
Hodgson's or Feather-toed Hawk-Eagle (6e)	Brown, black	White, dark grey	(13) 84
Crested Hawk-eagle (6e)	Brown, white	Chocolate brown	(13) 85
Rufousbellied Hawk-eagle (6c)	Black, white	Rufous chestnut	(13) 88
Crested Serpent Eagle (6e)	Brown	White, black	(13) 108
Large Crested Tern	Black, grey	White, yellow bill	(28) 214
Duck 61± cm.			
Smew (6c)	White, Black eye patch and crest	Ducks crest chestnut red	(10) 69
Village Hen 46-76± cm.			
Peafowl (1, 5d)	Metallic, blue green	Brown, chestnut	(18) 135
Houbara (4, 6e)	Buff brown	White	(21) 154
Vulture 91± cm.			
Spottedbilled Pelican (2,6d)	Brownish white		(2) 4
Great Indian Bustard (4, 6e)	Buff brown, white	Black	(21) 153
Rufousnecked Hornbill (1,2,6c)	Black, rufous	Maroon, white	(39) 303

HOW TO RECOGNISE BIRDS IN THE FIELD

4. Long-legged Birds

Size & Form	Leg Colour	Predominant Colours of Bird	Associated Colours	Bill	(Plate) & Species No.
Quail 17-20± cm.					
Golden Plover (6e)	Black	Brown, black, white	Gold and white (spangled)	Black, Pigeon-like	(23) 165
Painted Snipe (2,5d)	Olive Green	Metallic olive-green	Buff, black	Greenish, brown, slender	(24) 192
Partridge 33± cm.					
Whitebreasted Waterhen (6d)	Yellowish green	Slaty grey	White	Green and red	(20) 148
Kora or Watercock (6a,e)	Red (male breeding), greenish brown	Black (breeding male), brown (non-breeding male, female)		Blood red (breeding male) yellowish (non-breeding male, female)	(20) 149
Indian Moorhen (6d)	Greenish yellow or greenish slate	Slaty grey	Brown, white	Green and red	(20) 150
Pheasant-tailed Jaçana (1,6e)	Dull green	White	Chocolate brown	Yellowish brown	(20) 157
Bronzewinged Jaçana (6f)	Dull green	Metallic bronze-green	Black, chestnut-red	Greenish yellow and red	(20) 158
Whitetailed Lapwing (6c)	Yellow	Brown, white		Black	(23) 160
Redwattled Lapwing (6c)	Yellow	Bronze-brown	White, red lappets	Orange red and black	(23) 161
Spurwinged Plover (6c)	Black	Brown, white, black	Vinous grey	Black, short, pigeon-like	(22) 162
Yellow-wattled Lapwing (6c)	Bright yellow	Sandy brown, white	Black, yellow lappets	Black, greenish yellow at base	(23) 163
Grey Plover (6d)	Dusky grey	Brown grey	White, black	Black	(23) 164
Spotted Redshank (6e)	Orange-red	Brown	White	Blackish brown, orange salmon at base of lower mandible	(25) 173
Redshank (6e)	Orange	Brown	White	Black-orange, red on basal 3rd	(25) 174
Marsh Sandpiper (6e)	Olive green	Greyish brown	White	Brownish black	(25) 175
Greenshank (6e)	Olive or yellowish green	Brown	White, grey	Greenish brown, slightly upturned, black tip	(25) 176
Blackwinged Stilt (2,6c)	Crimson red	Black, white		Black, slender	(22) 193
Avocet (2, 6c)	Bluish	Black, white		Black, slender, upturned	(22) 194
Crab plover (2,6c)	Greyish white	Black, white		Black	(22) 195
Oystercatcher (2,6c)	Red	Black, white		Orange red	(22) 159
Stone Curlew (6e)	Yellow	Brown	Black and white	Black and yellow	(22) 196
Indian Courser (6e)	China white	Sandy brown	Chestnut, black	Black	(23) 198
Jerdon's Courser (6e)	Yellowish or pinkish white	Pinkish sandy brown	Rufous, white	Pale yellow and blackish	(23) 199

4. Long-legged Birds (*Contd.*)

Size & Form	Leg Colour	Predominant Colours of Bird	Associated Colours	Bill	(Plate) & Species No.
Duck 61± cm.					
Openbill Stork (2,6c)	Dull pinkish	Greyish white	Black	Reddish black, pointed with gap in between	(5) 30
Spoonbill (2, 6b)	Black	White		Black and yellow, spoonshaped	(6) 41
Lesser Flamingo (2,5c)	Red	Rose pink	Crimson	Dark lake red, upper mandible not overlapping	(6) 42
Village Hen 46-76± cm.					
Little Green Heron (2)	Yellowish leaf green	Greenish black	Ash grey and white	Dark brown above, sage green below	(3) 15
Pond Heron (2,6e)	Dull green	Earthy brown	White	Greenish yellow, blue at base	(3) 16
Chinese Pond Heron	Yellowish Green	Earthy brown, maroon chestnut (breeding)	White	Yellow, blackish at base	(3) 17
Cattle Egret (2,6b)	Greenish black	White		Yellow, straight, pointed	(3) 18
Little Egret (2,6b)	Black	White		Black, straight, pointed	(3) 20
Indian Reef Heron (2,6b)	Greenish black	White or slaty grey		Yellowish brown, straight pointed	(3) 21
Median Egret (2,6b)	Dusky black	White		Black, yellow at base (breeding)	(3) 19
Night Heron (2,6d,6e)	Dull green	Ashy grey	Greenish black	Black and greenish yellow pointed	(3) 22
Tiger Bittern (2)	Dull green, brownish in front	Greyish black	Chestnut, cinnamon	Yellow with horny brown	(4) 23
Little Bittern	Greenish yellow	Black and white		Creamy or purplish yellow	(4) 24
Chestnut Bittern (2,6e)	Yellowish green	Chestnut, ochraceous		Black	(4) 25
Yellow Bittern (2,6e)	Yellow or greenish yellow	Yellowish fawn	Black, brown, rufous chestnut	Horny brown	(4) 26
Black Bittern (2,6f)	Dark brown	Black and buff		Reddish horny	(4) 27
Bittern (2,6e)	Pale green	Tawny buff	Black	Greenish yellow	(4) 28
White Ibis (2, 6b)	Black	White	Black	Black, long, curved	(6) 37
Black Ibis (2, 6a)	Dark brick-red	Black		Slaty green, long, curved	(6) 38
Glossy Ibis (2, 6b)	Bronze brown	Black	White	Olive grey or plumbeous brown, long, curved	(6) 39
Purple Moorhen (5e)	Red	Purplish blue	White	Red, heavy	(20) 151

4. Long-legged Birds (*Contd.*)

Size & Form	Leg Colour	Predominant Colours of Bird	Associated Colours	Bill	(Plate) & Species No.
Village Hen 46-76± cm.					
Houbara (3,6e)	Greenish, plumbeous or brownish yellow	Sandy buff	Black, white	Upper mandible blackish, lower mandible greenish yellow	(21) 154
Bengal Florican (6c,e,f)	Straw yellow	Black, brown	White	Dark horny	(21) 155
Lesser Florican (6e,f)	Dusky yellow	Black, brown	White	Horny brown yellowish	(21) 156
Great Stone Plover (2)	Greenish grey	Greyish sandy	Black and white	Black and yellow	(22) 197
Vulture 91± cm.					
Great Whitebellied Heron (2,6d)	Black	White	Black	Black	(2) 10
Giant Heron (2)	Slaty black	Chestnut and cinnamon	White and slaty black	Horny slate with yellow gaps	(2) 11
Grey Heron (2,6d)	Greenish brown	Grey	White	Yellowish or brownish, dagger shaped	(2) 12
Purple Heron (2)	Reddish brown	Purplish slaty	Black, purplish blue	Dark yellow, tip horny	(2) 13
Large Egret (2,6b)	Black-brown	White		Black, base yellow	(2) 14
Painted Stork (2, 6c)	Yellowish or reddish brown	Black and white	Pink	Yellow, heavy, pointed, bent down at tip	(5) 29
White Stork (2, 6c)	Red	White and black		Red, heavy, pointed	(5) 32
Whitenecked Stork (2,6c)	Red	Black	White	Reddish black, heavy, pointed	(5) 31
Black Stork (2 6c)	Coral or scarlet red	Black and white	White	Red, pale at tip	(5) 33
Blacknecked Stork (2, 6c)	Coral red	Black	White	Straight, heavy, black	(5) 34
Adjutant (2,6c)	Greyish white	Blackish grey	Dirty white	Yellowish, heavy, pointed	(5) 35
Lesser Adjutant (2,6c)	Greenish brown, almost black	Black and white		Yellowish, heavy, pointed	(5) 36
Flamingo (2, 6b)	Red	Rosy white		Red, heavy, down curved	(6) 41
Common Crane (2, 6d)	Black	Grey	Black, red naked patch on nape	Dingy green with yellowish tip	(19) 139
Sarus Crane (2, 6d)	Red	Grey	Red	Pale greenish horny	(19) 140
Siberian Crane (2,6b)	Pink	White	Red (naked skin)	Orange brown, dull pinkish flesh	(19) 141
Demoiselle Crane (6d)	Black	Grey	Black	Red-tipped greyish	(19) 142
Great Indian Bustard (3,6e)	Yellowish cream, greyish white	Buff brown	White, black	Greyish white or greyish brown, black tip	(21) 153

5. Bright coloured Birds

a. Chiefly Green

Size & Form	Associated Colours	(Plate) & Species No.
***Sparrow 15±** cm.*		
Lorikeet	Crimson, blue	(31) 242
Green Bee-eater (1,2)	Rusty brown, black	(38) 295
Crimsonthroated Barbet	Crimson, black	(40) 313
Crimsonbreasted Barbet	Crimson, yellow	(40) 314
Tailor Bird (1)	White, rusty red	(57) 459
Dull Green Leaf Warbler	Yellow, yellowish white	(58) 471
Plain coloured Flowerpecker	Olive green, grey, white	(62) 510
Firebreasted Flowerpecker (5a)	Yellow, black, red	(62) 512
Green Munia	Yellow, brown, white, bill deep scarlet	(64) 528
***Bulbul 20±** cm.*		
Chestnutheaded Bee-eater (2)	Chestnut, yellow	(38) 292
Bluecheeked Bee-eater (1,2)	Chestnut, blue-green, black,white	(38) 293
Bluetailed Bee-eater (1,2)	Chestnut, blue, black	(38) 294
Goldfronted Chloropsis	Golden yellow, purple, black	(50) 395
Goldmantled Chloropsis	Purplish blue (male), greenish blue (female)	(50) 396
Greyheaded Bulbul	Grey	(50) 399
Striated Green Bulbul (3)	Olive brown, yellow, white	(51) 405
***Myna 23±** cm.*		
Roseringed Parakeet (1)	Rose, black (pink in male)	(31) 237
Blossom-headed Parakeet (1)	Bluish red, maroon, yellow	(31) 239
Slatyheaded Parakeet (1)	Bluish-slate, black, red, blue	(31) 240
Bluewinged Parakeet (1)	Blue-green, blue, yellow	(31) 241
Large Green Barbet	Brown, white streaked	(41) 309
Lineated Barbet	Brown, white streaked	(41) 310
Small Green Barbet	White, black, brown	(41) 311
Bluethroated Barbet	Crimson, blue, black	(41) 312
Small Yellownaped Woodpecker	Yellowish, crimson	(40) 319
Little Scalybellied Woodpecker	Yellow, brown, white, crimson, black	(40) 318
Green Magpie (1)	Red white	(48) 375
***Pigeon 33±** cm.*		
Pintailed Green Pigeon (1)	Yellow, orange pink, cinnamon, white, greyish olive	(29) 219
Wedge-tailed Green Pigeon	Orange, rufous, maroon (Male)	(29) 220
Greyfronted Green Pigeon	Ashy grey, chestnut maroon, legs red	(29) 221
Orangebreasted Green Pigeon	Orange, black, cinnamon	(29) 222
Common Green Pigeon	Ashy grey, lilac, red, yellow, black, legs yellow	(29) 223
Green Imperial Pigeon	Pinkish grey, chestnut maroon	(29) 224
Large Indian Parakeet (1)	Maroon, black, pink	(31) 236
Redbreasted Parakeet (1)	Pink, plum red, yellow, black, bluish green	(31) 238
Bluebearded Bee-eater (2)	Blue, reddish buff	(38) 296

5. Bright coloured Birds (*Contd.*)

b. Chiefly or largely Yellow

Size & Form	Associated Colours	(Plate) & Species No.
Sparrow 15± cm.		
Small Minivet (female) (5c)	Grey	(49) 391
Iora	Black, white, green	(50) 393
Marshall's Iora	Black, white	(50) 394
Yellowcheeked Tit (3)	Black, white	(61) 495
Yellowheaded Wagtail (1)	Black, grey	(62) 504
Yellow Wagtail (1)	Black, blue grey	(62) 503
White-eye	White ring round eye	(63) 520
Baya (Breeding male) (6e)	Dark brown	(64) 523
Finn's Baya (breeding) (6e)	Brown, brown streaked	(64) 524
Blackheaded Bunting	Black, fulvous brown, chestnut	(64) 535
Redheaded Bunting	Chestnut, ashy brown	(64) 536
Bulbul 20± cm.		
Scarlet Minivet (female) (5c)	Black	(49) 388
Longtailed Minivet (female) (5c)	Black	(49) 389
Rosy Minivet (female) (5c)	Black	(49) 390
Blackheaded Yellow Bulbul (3)	Black, olive	(50) 400
Rubythroated Bulbul	Black, ruby red	(50) 401
Yellowbrowed Bulbul	Olive	(51) 408
Myna 23± cm.		
Lesser Goldenbacked Woodpecker	Black, buffy white	(41) 320
Indian Goldenbacked Three-toed Woodpecker	Black, crimson, orange, white	(41) 321
Golden Oriole	Black	(45) 352
Blacknaped Oriole	Black	(45) 353
Blackheaded Oriole	Black	(45) 354
Pigeon 33± cm.		
Blackbacked Woodpecker	Black, white, fulvous	(41)326

c. Chiefly or largely Red

Sparrow 15± cm.		
Small Minivet	Black, grey	(49) 391
Red Munia (breeding male)	Stippled with white	(64) 527
Common Rosefinch	Female brownish	(64) 534
Bulbul 20± cm.		
Rosy Pastor (3)	Pink, black	(47) 367
Scarlet Minivet (5b)	Black	(49) 388
Longtailed Minivet (5b)	Black	(49) 389
Rosy Minivet (5b)	Black	(49) 390
Myna 23± cm.		
Redheaded Trogon (1)	Black, brown, white	(37) 282
Pigeon 33± cm.		
Kestrel	Grey, buff, black, *female* rufous	(16) 119

5. Bright coloured Birds (*Contd.*)

c. Chiefly or largely Red

Size & Form	Associated Colours	(Plate) & Species No.
Village Hen 46-76± *cm.*		
Red Junglefowl (cock) (1)	Black, orange	(18) 133
Duck 61± cm.		
Lesser Flamingo (2,4)		(6) 42

d. Several bright colours in plumage

Sparrow 15± *cm.*		
Small Blue Kingfisher (5d)	Blue-green, rusty brown	(37) 284
Blue-eared Kingfisher (5d)	Purplish blue, ferruginous	(37) 285
Three-toed Kingfisher (5d)	Purple blue, lilac, bright	(37) 286
Speckled Piculet	Yellow olive, black, orange, white	(40) 316
Silvereared Mesia	Yellow, crimson, orange yellow, silver	(52) 429
Redbilled Liothrix	Greyish olive, yellow, black, crimson, scarlet beak	(53) 430
Rufousbellied Niltava	Black, ultramarine blue, purplish blue, rufous orange	(55) 440
Purple-rumped Sunbird (2)	Metallic crimson, green,purple, yellow	(63) 513
Loten's Sunbird (2)	Black with metallic green and purplesheen, dark crimson, maroon, bright yellow	(63) 515
Yellowbacked Sunbird (2)	Purple, green, crimson, yellow	(63) 517
Quail 17-20± *cm.*		
Bluenaped Pitta	Blue, greenish, brown, fulvous green	(42) 328
Indian Pitta	Green, blue, fulvous, black and white, crimson	(42) 329
Hooded or Greenbreasted Pitta	Green, rufous brown, black, bluish green, blue, crimson	(42) 330
Painted Snipe (2,4)	Metallic olive green, buff, white, black	(24) 192
Bulbul 20± *cm.*		
Longtailed Broadbill (1)	Bright blue, black, green, yellow, white	(42) 327
Blackheaded Sibia (3)	Black, rufous, grey, white, cinnamon	(53) 433
Myna 23± *cm.*		
Southern Trogon (1)	Red, black, brown	(37) 281
Whitebreasted Kingfisher (2)	Blue, chocolate brown, white	(37) 289
Himalayan Great Barbet	Maroon-brown, violet, blue black, olive brown, scarlet, blue and yellow	(41) 308
Pigeon 33± *cm.*		
Emerald Dove	Emerald bronze green, bluish grey, vinous red, white	(30) 235
Duck 61± *cm.*		
Falcated Teal (male breeding) (6)	Metallic bronze green, chestnut purple (bushy mane-like nuchal crest), white, green, black, white and grey sickle-shaped secondaries	(9) 56
Mallard	Metallic green, chestnut white, black, vermiculated (greenish bill, orange legs)	(9) 54
Vulture 91± *cm.*		
Peacock (1,3,6e)	Metallic blue, green, brown chestnut	(18) 135

5. Bright coloured Birds (*Contd.*)

e. Chiefly Blue

Size & Form	Associated Colours	(Plate) & Species No.
Sparrow 15± cm.		
Common Swallow (1)	White, black	(44) 342
Wiretailed Swallow (1)	Chestnut, white	(44) 344
Indian Cliff Swallow	Brown, chestnut, white	(44) 345
Redrumped Swallow (1)	White, chestnut	(44) 346
Whitebrowed Blue Flycatcher	White	(55) 438
Whitebellied Blue Flycatcher	White	(55) 441
Bluethroated Flycatcher	Black, rufous, white	(56) 443
Tickell's Blue Flycatcher	Rusty, white	(56) 444
Verditer Flycatcher	Greenish tinge	(56) 445
Nilgiri Verditer Flycatcher	White	(56) 446
Blacknaped Blue Flycatcher	Black, white	(56) 451
Blue Chat (6c)	White, black, chestnut	(59) 474
Velvetfronted Nuthatch	Black, white, greyish lilac	(61) 497
Bulbul 20± cm.		
Blueheaded Rock Thrush (6e)	Chestnut, black, white	(60) 486
Blue Rock Thrush (6e)	Blue	(60) 487
Orangeheaded Ground Thrush	Orange chestnut, white	(60) 490
Whitethroated Ground Thrush	Brown, whtie	(60) 491
Myna 23± cm.		
Blackcapped Kingfisher (2)	Black, rusty white	(37) 290
White Collared Kingfisher (2)	White	(37) 291
Fairy Bluebird	Black	(50) 397
Malabar Whistling Thrush	Black bill	(60) 488
Pigeon 33± cm.		
Storkbilled Kingfisher (2)	Buff brown	(37) 287
Indian Roller	Rufous brown, reddish brown	(38) 298
European Roller	Brownish rufous	(38) 297
Broadbilled Roller	Greenish brown	(38) 299
Himalayan Whistling Thrush	White spots, yellow bill	(60) 489
Yellowbilled Blue Magpie (1)	Black, white	(48) 376
Village Hen 46-70± cm.		
Purple Moorhen (4)	Red legs, white	(20) 151

HOW TO RECOGNISE BIRDS IN THE FIELD

6. Sober Coloured Birds

a. General effect more or less wholly Black

Size & Form	(Plate) & Species No.
Sparrow 15± *cm.*	
House Swift (smoky black), white	(36) 278
Nilgiri House Swallow (metallic green gloss), chestnut, pale ash	(44) 343
Purple Sunbird (*male*) (2)	(63) 516
Bulbul 20± *cm.*	
Black Drongo (1)	(46) 356
Bronze Drongo	(46) 360
Grey Drongo (slate black) (1)	(46) 357
Myna 23± *cm.*	
Drongo-cuckoo (white undertail coverts and on outer tail feathers) (1)	(33) 250
Crowbilled Drongo (1)	(46) 359
Haircrested Drongo (1)	(46) 361
Racket-tailed Drongo (1,3)	(46) 362
Starling (Green and purple reflections stippled with white)	(47) 368
Hill Myna (yellow wattles)	(47) 374
Goldcrested Myna (yellow head, white patch on wing) (3,6f)	(47) 373
Partridge 33± *cm.*	
Black partridge (white spots, white cheek patch, chestnut)	(18) 120
Kora or Watercock (*breeding male*), bright red fleshy 'horn' on head (4, 6e)	(20) 149
Crow 43± *cm.*	
Little Cormorant	(1) 8
Koel (Male) (1,6e)	(33) 251
Crow Pheasant (chestnut wings) (1)	(33) 255
Lesser Crow Pheasant (chestnut wings), tail feathers tipped white (1)	(33) 256
House Crow	(48) 380
Jungle Crow	(48) 381
Kite 61± *cm.*	
Black Eagle (bright yellow cere and legs)	(13) 93
Raven	(48) 382
Duck 61± *cm.*	
Large Cormorant	(1) 6
Indian Shag	(1) 7
Darter	(1) 9
Coot (bill and frontal shield ivory white)	(20) 152
Village Hen 46-76± *cm.*	
Black Ibis (2,4)	(6) 38
Glossy Ibis (2,4)	(6) 39
Vulture 91± *cm.*	
Black or King Vulture (Scarlet naked head with wattles)	(15) 97

6. Sober Coloured Birds (*Contd.*)

b. General effect more or less White

Size & Form	(Plate) & Species No.
Bulbul 20± *cm.*	
Paradise Flycatcher (adult male) (black on head) (1,3)	(56) 450
White Wagtail (black) (1)	(62) 506
Duck 61± *cm.*	
Spoonbill (2,4)	(6) 40
Village Hen 46-76± *cm.*	
Cattle Egret (2,4)	(3) 18
White Ibis (2,4)	(6) 37
Little Egret (2,4)	(3) 20
Median Egret (2,4)	(3) 19
Reef Heron (2,4,6d)	(3) 21
Vulture 91± *cm.*	
Rosy or White Pelican (2)	(2) 3
Dalmatian Pelican (2)	(2) 5
Large Egret (2,4)	(2) 14
Flamingo (2,4) (rosy white) (*immature*)	(6) 41
White Scavenger Vulture (naked yellow head and bill (6e)	(15) 102
Siberian Crane (red head) (2,4)	(19) 141

c. General effect Pied Black and White

Size & Form	(Plate) & Species No.
Sparrow 15± *cm.*	
Pigmy Woodpecker	(40) 324
Heartspotted Woodpecker	(40) 325
House Martin	(44) 347
Pied Flycatcher Shrike	(49) 383
Whitebellied Minivet (rump and breast orange red)	(49) 392
Whitewinged Black Tit	(61) 494
Whitebacked Munia	(64) 530
Bulbul 20± *cm.*	
Redbreasted Falconet (ferruginous on chin, throat, thighs and undertail coverts)	(16) 110
Pied Pygmy Falcon	(16) 111
Yellowfronted Pied or Maharatta Woodpecker	(40) 323
Whitebellied Drongo (1)	(46) 358
Magpie Robin	(59) 475
Large Pied Wagtail	(62) 507
Myna 23± *cm.*	
Pied Crested Cuckoo (1,3)	(32) 244
Pied Kingfisher (2)	(37) 283
Pied Myna (orange bill and orbital skin)	(47) 369

6. Sober Coloured Birds

c. General effect Pied Black and White (Contd.)

Size & Form	(Plate) & Species No.
Pigeon 33± cm.	
Blackcrested Baza (3)	(11) 73
Partridge 33± cm.	
Cotton Teal	(10) 66
Oystercatcher (2,4)	(22) 159
Blackwinged Stilt (2,4)	(22) 193
Avocet (2,4)	(22) 194
Crab Plover (2,4)	
Redwattled Lapwing (Bronze brown) (4)	(23) 161
Yellow-wattled Lapwing (Sandy brown) (4)	(23) 163
Whitetailed Lapwing (brown)	(23) 160
Spurwing Plover (brown)	(23) 162
Crow 43± cm.	
Indian Skimmer	(27) 215
Redwinged Crested Cuckoo (red wings) (1,3)	(32) 243
Great Black Woodpecker (crimson)	(41) 322
Kite 61± cm.	
Rufousbellied Hawk-eagle (3) (rich rufous chestnut on lower breast)	(13) 88
Pied Harrier (6e)	(14) 105
Duck 61± cm.	
Openbill Stork (2,4)	(5) 30
Common Shelduck (chestnut band on breast)	(7) 48
Tufted Pochard (leaden or greyish blue legs and bill)	(10) 64
Scaup Duck (*male, breeding*)	(10) 65
Nukta or Comb Duck	(7) 67
White-winged Wood Duck	(7) 68
Smew (3)	(10) 69
Goosander (glossed metallic green and purple)	(10) 70
Vulture 91± cm.	
Painted Stork (2,4)	(5) 29
White Stork (2,4)	(5) 32
Whitenecked Stork (2,4)	(5) 31
Black Stork (2,4)	(5) 33
Adjutant Stock (2,4) (Grey)	(5) 35
Lesser Adjutant (2,4)	(5) 36
Rufousnecked Hornbill (*female*) (1,2,3)	(39) 303
Wreathed Hornbill (1,2) (chestnut in *male*) (1,2)	(39) 304
Indian Pied Hornbill (outer tail feather black with white tips) (1,2)	(39) 305
Malabar Pied Hornbill (outer tail feathers all white) (1,2)	(39) 306
Great Pied Hornbill (1,2)	(39) 307

6. Sober Coloured Birds

d. General effect largely Ashy Grey, Blue Grey or Slaty

Size & Form	Associated Colours	(Plate) & Species No.
Sparrow 15± cm.		
Small Pratincole	Sandy grey, black, white	(23) 201
Palm Swift	Sooty grey	(36) 279
Sand Lark	Streaked with brown, white	(43) 337
Whitebrowed Blue Flycatcher (*female*) (6e)	White	(55) 438
Greyheaded Flycatcher	Yellow	(56) 447
Franklin's Wren Warbler	Brown, white	(57) 453
Ashy Wren-Warbler (1)	White	(57) 456
Orphean Warbler	White, black	(58) 468
Grey Tit	Black, white	(61) 493
Chestnutbellied Nuthatch	Chestnut	(61) 496
Thickbilled Flowerpecker	Olive brown, white	(62) 508
Grey Wagtail (1)	Yellow, black	(62) 505
Quail 17-20± cm.		
Bluebreasted Quail (*male*) (6e)	Buff, reddish, brown, black (legs bright yellow)	(17) 126
Slatylegged Banded Crake	White, black	(20) 144
Baillon's Crake	Rufescent, grey	(20) 146
Sanderling	Off white, black shoulder patch	(26) 185
Bulbul 20± cm.		
Crested Tree Swift (3)	Blue grey, whtie, chestnut	(36) 280
Grey Shrike	Black, white	(45) 348
Ashy Swallow Shrike		(46) 363
Blackheaded Cuckoo shrike	Black, white	(49) 387
Black Bulbul (3)	Legs and bill red	(51) 409
Myna 23± cm.		
Little Tern	White, head black capped in summer	(28) 213
Red Turtle Dove	Vinous red, white	(30) 232
Plaintive Cuckoo	White, black	(32) 249
Spotted winged Stare	Black, chestnut rufous, rusty white	(47) 364
Greyheaded Myna	Rusty brown, black	(47) 365
Bank Myna	Orbital skin brick red	(47) 371
Wynad Laughing Thrush	Yellow, black, white	(54) 426
Black Bird	Black cap, orange yellow bill, legs and eye rings. Female ashy grey with grey cap	(60) 492
Pigeon 33± cm.		
Hobby	Black, rusty white	(16) 115
Oriental Hobby	Ferruginous	(16) 116
Redheaded Merlin	Chestnut, white	(16) 117
Redlegged Falcon	Rusty red below (*male*), barred black, rusty white below (*female*)	(16) 118
Bluebreasted banded Rail	Chestnut, dark brown, white	(20) 143
Whiskered Tern	White, in summer head and belly black, bill red	(28) 207
Blue Rock Pigeon	Glistening purple and green, black	(30) 226
Ring Dove	Black, lilac	(30) 231

6. Sober Coloured Birds

d. General effect largely Ashy Grey, Blue Grey or Slaty (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
Pigeon 33± cm.		
Common Hawk Cuckoo	White, rusty brown	(32) 245
Indian Cuckoo	White, brown (*immature*)	(32) 246
Cuckoo	White, black, blackish-brown, rufous (*female*)	(32) 247
Large Greenbilled Malkoha (1)	White, greenish black, yellowish	(33) 252
Large Cuckoo Shrike	Black, white	(49) 386
Partridge 33± cm.		
Whitebreasted Waterhen (4)	White	(20) 148
Indian Moorhen (4)	White, frontal shield bright red	(20) 150
Grey Plover (4)	White, black	(23) 164
Crow 43± cm.		
Blackwinged Kite	White, black	(11) 71
Shikra	White, rusty brown	(11) 77
Sparrow Hawk	White, black	(11) 79
Besra Sparrow Hawk	White, black	(11) 80
Gullbilled Tern	White, in summer head, nape jet black. Bill and legs black	(28) 208
Brownheaded Gull	White, black, head coffee brown (summer), white mirror on black first primary	(27) 205
Blackheaded Gull	Leading edge of wing pure white	(27) 206
Caspian Tern	White, black, bill coral red, legs black	(28) 209
River Tern	White. In summer, forehead, crown, nape jet black, bill yellow, legs red.	(28) 210
Common Tern	White, black. Bill black with red base	(28) 211
Black bellied Tern	White, black, tail deeply forked	(28) 212
Small Greenbilled Malkoha (1)	White, rufous	(33) 253
Kite 61± cm.		
Pale Harrier (*male*) (6e)	Black	(14) 103
Montagu's Harrier (*male*)	Black	(14) 104
Peregrine Falcon	Rufous white	(16) 113
Shaheen Falcon	White, ferruginous	(16) 114
Dusky Horned Owl	Yellow eyes, 'horns' close to each other	(34) 263
Common Grey Hornbill (1,2)		(39) 301
Malabar Grey Hornbill (1,2)		(39) 302
Duck 61± cm.		
Bar headed Goose	Brownish, white, black	(7) 44
Marbled Teal	Brown, black	(8) 49
Common Pochard (*breeding male*)	Black, chestnut	(10) 62
Herring Gull	White, black, yellow legs, mandible tip bright red. White mirror on black wing quills	(27) 202
Lesser Blackbacked Gull	White, black, white trailing edge of wing	(27) 203
Great Blackheaded Gull	White, black, bright red patch at angle of bill	(27) 204

6. Sober Coloured Birds

d. General effect largely Ashy Grey, Blue Grey or Slaty (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
Village Hen 46-76± cm.		
Indian Reef Heron (2,4)	Dark brown	(3) 21
Night Heron (2,4,6e)	White, greenish black	(3) 22
Grey Hornbill	Black, white	(39) 301
Malabar Grey Hornbill	Black, white	(39) 302
Grey Jungle Fowl (cock) (1)	Gold speckled hackles	(18) 134
Vulture 91± cm.		
Spotted billed or Grey Pelican (2,3)	Brown nuchal crest	(2) 4
Great Whitebellied Heron (2,4)	White, slaty black	(2) 10
Grey Heron (2,4)	White, black	(2) 12
Common Crane (2,4)	Black, red naked patch on nape	(19) 139
Sarus Crane (2,4)	Red	(19) 140
Demoiselle Crane (4)	Black, white	(79) 142

e. General effect more or less Brown (all shades)

Sparrow 15± cm.		
Little Stint	White	(26) 186
Temminck's Stint	White (outer tail feathers pure white)	(26) 187
Edible Nest Swiftlet		(36) 276
Singing Bush Lark	Rufous, white	(42) 331
Bush Lark	Rufous, chestnut	(42) 332
Redwinged Bush Lark	Chestnut	(42) 333
Blackbellied Finch Lark	Black, white, ashy	(43) 334
Rufous tailed Finch Lark	Rufous, black	(43) 335
Short-toed Lark	White, black streaks	(43) 336
Indian Small Skylark	White, black streaks	(43) 340
Crested Lark (3)		(43) 338
Sykes's Crested Lark (3)		(43) 339
Dusky Crag Martin	White	(44) 341
Rufous bellied Babbler	Rusty fulvous, olive	(52) 412
Yellowbreasted Babbler	Yellow, olive	(52) 413
Redcapped Babbler	Red, white, slate grey	(52) 414
Quaker Babbler	Ashy grey	(52) 412
Brown Flycatcher	White eye ring, white, grey	(55) 434
Rufoustailed Flycatcher	Rufous, white	(55) 436
Redbreasted Flycatcher	Orange-chestnut breast in male, black and white tail	(55) 437
Brownbreasted Flycatcher	White	(55) 435
Brooks's Flycatcher	White, grey	(55) 442
Rufousbellied Niltava (*female*) (5d)	Blue, white	(55) 440
Whitebellied Blue Flycatcher (*female*)	Rufous, white, blue	(55) 441
Bluethroated Flycatcher (*female*) (5e)	Rufous, white, buff	(56) 443
White browed Fantail Flycatcher	White	(56) 448
Whitespotted Fantail Flycatcher	White	(56) 449

6. Sober Coloured Birds

e. General effect more or less Brown (all shades) (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
***Sparrow 15±** cm.*		
Streaked Fantail Warbler	White	(57) 452
Plain Wren-Warbler (1)		(57) 455
Jungle Wren-Warbler (1)	White	(57) 457
Bristled Grass Warbler (1)	Cream buff	(58) 461
Rufousfronted Wren-Warbler	Rufous, white	(57) 454
Streaked Wren-Warbler	White	(57) 458
Pallas's Grasshopper Warbler	Grey, white, black	(57) 460
Blyth's Reed Warbler	White, buff	(58) 465
Paddyfield Warbler	White, ochraceous buff	(58) 466
Booted Warbler	White, buff	(58) 467
Lesser Whitethroat	White, grey	(58) 469
Long-billed Leaf Warbler	Yellow, olive	(58) 470
Bluethroat	Blue, white, chestnut	(59) 472
Rubythroat	Scarlet, black, white	(59) 473
Blue Chat (*female*) (5e)	White, ochraceous	(59) 474
Brown Rock Chat	Rufous, blackish tail	(59) 478
Jerdon's Chat (*female*) (6c)	Rufous, white, fulvous	(59) 482
Pied Bush Chat (*female*) (6c)	Rufous	(59) 481
Indian Robin (*female*) (6f)		(60) 485
Spotted Creeper	Spotted with white	(61) 498
Paddyfield Pipit	Fulvous, streaked	(61) 499
Indian Tree Pipit	White, streaked	(61) 501
Forest Wagtail (1)	Pale eye ring, yellow bands	(62) 502
Tickell's Flowerpecker	Whitish	(62) 509
Little Spiderhunter	Yellow, white	(63) 518
Streaked Spiderhunter	Yellowish olive, yellow legs	(63) 519
House Sparrow	Chestnut, black, white	(63) 521
Yellowthroated Sparrow	Chestnut, lemon yellow, white	(63) 522
Baya (5b)	Fulvous, whitish fulvous	(64) 523
Finn's Baya (5b)	Yellow	(64) 524
Streaked Weaver Bird	Fulvous breast streaked black, crown of head of breeding male yellow	(64) 526
Red Munia (*non-breeding male, female*)	Stippled white, crimson rump	(64) 527
Whitethroated Munia	Black, white	(64) 529
Rufousbellied Munia	Blackish, chocolate	(64) 531
Spotted Munia	White, speckled black (breeding)	(64) 532
Blackheaded Munia	Black, white	(64) 533
Striolated Bunting	Greyish white, white, black	(64) 537
Crested Bunting (*female*)	Cinnamon	(64) 538
***Quail 17-20±** cm.*		
Grey Quail	Buff, black	(17) 124
Blackbreasted or Rain Quail	Buff, black	(17) 125
Bluebreasted Quail (*female*) (6d)	Black	(17) 126
Jungle Bush Quail	Vinous, black	(17) 127

6. Sober Coloured Birds

e. General effect more or less Brown (all shades) (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
***Quail 17-20±** cm.*		
Rock Bush Quail	Brick red throat patch (*male*), white chin (*female*)	(17) 128
Painted Bush Quail	Olive brown, chestnut, white	(17) 129
Little Bustard Quail	White, rufous, black	(17) 136
Indian Button Quail	Greyish brown, buff, black, white, ferruginous red	(17) 137
Common Bustard Quail	Black, white, buff	(17) 138
Little Crake	Ashy grey, white	(20) 145
Pintail Snipe (2)	Rufous, black	(24) 181
Common or Fantail Snipe (2)	Black	(24) 182
Jack Snipe (2)		(24) 183
Little Ringed Plover	White, black	(26) 166
Golden Plover (4)	Black, gold, white (spangled)	(23) 165
Kentish Plover	White, black	(26) 167
Lesser Sand Plover	White, fulvous	(26) 168
Wood or Spotted Sandpiper	White	(25) 177
Terek or Avocet Sandpiper (2)	White	(25) 178
Common Sandpiper	White	(25) 179
Turnstone	White (bill black, straight, legs orange red)	(25) 180
Dunlin	White, dark mottling above	(26) 188
Curlew Sandpiper (2)	Mottled white	(26) 189
Broadbilled Sandpiper	White, streaked on breast	(26) 190
***Bulbul 20±** cm.*		
Alpine Swift	White	(36) 277
Wryneck	Black, fulvous, white	(40) 315
Baybacked Shrike	Grey, white, black	(45) 349
Rufousbacked Shrike	Black, grey	(45) 350
Brown Shrike	White, black	(45) 351
Common Wood Shrike	Black, white	(49) 385
Redwhiskered Bulbul (3)	Red, white, black	(51) 402
Whitecheeked Bulbul (3)	White, yellow	(51) 403
Redvented Bulbul	White, red	(51) 404
Yellowthroated Bulbul	Grey, yellow	(51) 406
Whitebrowed Bulbul	White, olive green	(51) 407
Spotted Babbler	White, black spotted	(52) 410
Yellow-eyed Babbler	White, orange yellow ring round eye	(52) 415
Common Babbler (1)	Streaked darker	(53) 416
Striated Babbler (1)	Fulvous throat	(53) 417
Slenderbilled Babbler (1)	Reddish, white	(53) 418
Whiteheaded Babbler	Cream, greyish brown	(53) 422
Whiteheaded Shrike Babbler	White, buff	(52) 431
Striated Marsh Warbler (1)	Streaked	(58) 462
Thickbilled Warbler	Whitish buff, ochraceous	(58) 463
Indian Great Reed Warbler	White supercilium, buff	(58) 464
Blueheaded Rock Thrush (*female*) (5e)	Scaly patterned	(60) 486
Blue Rock Thrush (*female*) (5e)	Whitish below, cross-barred with brown	(60) 487
Brown Rock Pipit	Buff supercilium, streaked	(61) 500

6. Sober Coloured Birds

e. General effect more or less Brown (all shades) (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
Myna 23± cm.		
Large Indian Pratincole	Black, rufous	(23) 200
Little Brown Dove	Lilac, vinous, ashy grey, white	(30) 234
Indian Baybanded Cuckoo	White, black	(32) 248
Scops Owl	Grey	(35) 259
Collared Scops Owl	Rufous, grey, white, black	(35) 260
Barred Jungle Owlet	Olive-brown, rufous, chestnut, white	(35) 265
Spotted Owlet	White	(35) 267
Common Indian Nightjar	Grey, brown, buff, fulvous, black streaked	(36) 274
Franklin's Nightjar	Buff, white	(36) 275
Ruddy Kingfisher (2)	Ruddy, white	(37) 288
Hoopoe (2,3)	Black, white	(38) 300
Rufous Woodpecker	Chestnut	(41) 317
Maroon Oriole	Maroon, black, white streaked	(45) 355
Brahminy Myna (3)	Grey, black	(47) 366
Indian Myna	White (wing patch)	(47) 370
Jungle Myna	White (wing patch)	(47) 372
Tree Pie (1)	Sooty grey, black	(48) 377
Whitebellied Tree Pie (1)	White, Black	(48) 378
Himalayan Tree Pie (1)	Ashy Grey, Black	(48) 379
Large Wood Shrike	Black, rufous	(49) 384
Slaty headed Scimitar Babbler	White, slaty grey	(52) 411
Large Grey Babbler (1)	Grey, white	(53) 419
Rufous Babbler	Grey, ferruginous	(53) 420
Jungle Babbler (1)	Grey	(53) 421
Necklaced Laughing Thrush	White, black	(54) 423
Blackgorgetted Laughing Thrush	White, rufous, black	(54) 424
Whitecrested Laughing Thrush (3)	White, black	(54) 425
Nilgiri Laughing Thrush	Rufous, black, white	(54) 427
Kerala or Jerdon's Laughing Thrush	Rufous, white	(54) 428
Pigeon 33± cm.		
Little Grebe (1a)	White	(1) 2
Painted Sandgrouse	Black, chocolate, white, buff close barred	(29) 218
Indian Sandgrouse (1)	Black	(29) 216
Imperial Sandgrouse	Black, white	(29) 217
Bartailed Cuckoo Dove (1)	Lilac purple, black	(30) 229
Nilgiri Wood Pigeon	Reddish brown (Black & White 'chessboard' on hindneck)	(30) 227
Purple Wood Pigeon	Greyish white, chestnut brown, vinous chestnut, metallic green and amethyst sheen	(30) 228
Rufous Turtle Dove	Black 'chessboard' on sides of neck. White	(30) 230
Spotted Dove	Grey, white, black and white 'chessboard' on hindneck	(30) 233
Brown Hawk Owl	White	(35) 266

6. Sober Coloured Birds

e. General effect more or less Brown (all shades) (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
Pigeon 33± cm.		
Bay Owl	Chestnut, buff, white, black	(35) 271
Shorteared Owl	Grey, black	(35) 270
Jungle Nightjar	Buff, white, black	(36) 272
Longtailed Nightjar	Buff, black, white	(36) 273
Partridge 33± cm.		
Painted Partridge	White, ferruginous red	(18) 121
Grey Partridge	Chestnut, black	(18) 122
Swamp Partridge	Buff, chestnut, white and black streaks	(18) 123
Mountain Quail	Olive-tinged slaty grey-brown , black, white (coral-red bill)	(18) 132
Brown Crake	Ashy grey	(20) 147
Kora or Watercock (*female and non-breeding male*) (4,6a)	Fulvous	(20) 149
Ruff	Grey brown, blackish (scaly patterned above)	(26) 191
Stone Curlew (4)	Buff white	(22) 196
Pheasant-tailed Jaçana (1,4) (non-breeding)	White, black	(20) 157
Jerdon's Courser (4)	Pinkish, sandy, rufous white	(23) 199
Indian Courser (4)	Sandy, chestnut, black	(23) 198
Wood Cock	Black, white	(24) 184
Spotted Redshank (4)	White	(25) 173
Redshank (4)	White	(25) 174
Marsh Sandpiper (4)	White	(25) 175
Greenshank (4)	White	(25) 176
Crow 43± cm.		
Blyth's Baza (3)	Black, white, rufous	(11) 72
Crested Goshawk (3)	Blackish grey, white, rufous brown	(11) 78
Maroonbacked Imperial Pigeon	Grey	(29) 225
Koel (*female*) (1,6a)	White	(33) 251
Sirkeer Cuckoo (1)	White, black	(33) 254
Barn Owl	White, grey, black	(34) 257
Grass Owl	White, black	(35) 258
Kite 61± cm.		
Honey Buzzard	White, grey, buff, black	(11) 74
Pariah Kite		(11) 75
Brahminy Kite	White (adult)	(11) 76
Longlegged Buzzard	Pale creamy rufous	(12) 81
Buzzard	Variable shades of brown	(12) 82
White-eyed Buzzard	Eyes white, white, buff	(12) 83
Tawny Eagle	Varying shades of brown	(12) 90
Crested Hawk-Eagle	White, grey	(13) 85
Hodgson's Hawk-Eagle	Chocolate brown	(13) 84
Bonelli's Hawk-Eagle	Umber brown, white, buff	(13) 86
Booted Hawk-Eagle	Umber brown, buff	(13) 87

6. Sober Coloured Birds

e. General effect more or less Brown (all shades) (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
Kite 61± cm.		
Greater Spotted Eagle	White, blackish	(12) 91
Lesser Spotted Eagle		(12) 92
Whitebellied Sea Eagle	White	(14) 94
Pallas's Fishing Eagle	White, golden brown	(14) 95
Greyheaded Fishing Eagle	White, grey, black	(14) 96
Pale Harrier (*female*) (6d)		(14) 103
Pied Harrier (*female*) (6c)	White, rufous	(14) 105
Marsh Harrier	Rufous, silver grey, black, creamy buff	(14) 106
Short-toed Eagle	White	(13) 107
Crested Serpent Eagle (3)	White, black	(13) 108
Osprey	White	(14) 109
Lagger Falcon	White	(16) 112
Great Horned Owl		(34) 261
Forest Eagle-Owl	Black and white horns	(34) 262
Brown Fish Owl	Legs not feathered, buff, black	(34) 264
Mottled Wood Owl	White, black	(34) 268
Brown Wood Owl	White, rufous	(34) 269
Duck 61± cm.		
Great Crested Grebe (1a)	White, black ear tufts	(1) 1
Greylag Goose	Grey, white	(7) 43
Large Whistling Teal	Pale brown, white	(8) 46
Lesser Whistling Teal	Pale brown, chestnut	(8) 45
Ruddy Shelduck	Black, white	(7) 47
Pintail (*male*)	Umber brown, black, white, grey, buff	(8) 50
Common Teal (*female*)		(8) 51
Spotbill Duck	Black, white, metallic green and purple, fulvous	(8) 52
Burmese Spotbill Duck	Colours as in Spotbill, but red spot on bill absent or small	(8) 53
Gadwall (*male*)	Dark brown, chestnut, grey, white, black, vermiculated (yellow legs)	(9) 55
Falcated Teal (*female*)	Grey wings and legs, black and green speculum	(9) 56
Wigeon (*male*)	Chestnut, buff (forehead patch), black, white, vermiculated (blue bill)	(9) 57
Garganey Teal	Rufous brown, ashy grey, buff, white	(9) 58
Shoveller (*male*)	Green, black, bluish grey, white, grey, buff	(9) 59
Pinkheaded Duck (*male*)	Brownish black, bright rosepink head, hindneck and bill	(9) 60
Redcrested Pochard (*male*)	Pale brown, black, white, chestnut orange (crimson bill)	(9) 61
Common Pochard (*female*)	Shades of brown and buff	(10) 62
White-eyed Pochard	White	(10) 63
Tufted Pochard *female*	White	(10) 64
Scaup Duck *female*, *male* (eclipse)	White	(10) 65

6. Sober Coloured Birds

e. General effect more or less Brown (all shades) (Contd.)

Size & Form	Associated Colours	(Plate) & Species No.
Village Hen 46-76± cm.		
Pond Heron (2,4)	White	(3) 16
Night Heron (2,4,6d) *immature*		(3) 22
Chestnut Bittern (2,4)	Ochraceous	(4) 25
Yellow Bittern (2,4)	Yellowish fawn, brown, rufous, black	(4) 26
Bittern (2,4)	Tawny buff, black	(4) 28
Red Spurfowl	Rufous chestnut, black	(18) 130
Painted Spurfowl	Chestnut, black, buff	(18) 131
Red Junglefowl *hen* (1)		(18) 133
Grey Junglefowl *hen* (1)	White	(18) 134
Peahen (1,3)	Metallic green	(18) 135
Houbara Bustard (4)	White, black	(21) 154
Bengal Florican *female* (4)	Black	(21) 155
Lesser Florican *female*, *non-breeding male* (4)	Black, white	(21) 156
Whimbrel (2)	Fulvous, buff	(24) 169
Curlew (2)	Fulvous buff, black	(24) 170
Blacktailed Godwit (2)	White, black	(24) 171
Bartailed Godwit (2)	Black and white tail, no white wing bar	(24) 172
Vulture 91± cm.		
Imperial Eagle *immature*	Streaked	(12) 89
Cinereous Vulture	Blackish brown, black ruff	(15) 98
Griffon Vulture	Cinnamon brown	(15) 99
Longbilled Vulture	White ruff	(15) 100
Whitebacked Vulture	White	(15) 101
White Scavenger Vulture *immature* (6b)		(15) 102
Great Indian Bustard (3,4)	White, black	(21) 153

f. General effect largely Black with other colours

Size & Form	Associated Colours	(Plate) & Species No.
Sparrow 15± cm.		
Black and Orange Flycatchers	Orange	(55) 439
Black Redstart	Orange chestnut	(59) 477
Collared Bush Chat	White, orange brown	(59) 479
White-tailed Bush Chat	Rufous chestnut, white, brown	(59) 480
Pied Bush Chat (6e)		(59) 481
Jerdon's Bush Chat (6e)		(59) 482
Desert Wheatear	Sandy buff, creamy white	(60) 483
Isabelline Chat	Sandy buff, white, black	(60) 484
Yellowcheeked Tit	Yellow	(61) 495
Indian Robin (*male*)	White, rusty red	(60) 485
Scarlet backed Flowerpecker	Crimson, buff grey, olive (*female*)	(62) 511
Firebreasted Flowerpecker	Scarlet, creamy buff	(62) 512
Crested Bunting (3)	Chestnut	(64) 538

6. Sober Coloured Birds

f. General effect largely Black with other colours (*contd.*)

Size & Form	Associated Colours	(Plate) & Species No.
Bulbul 20± *cm.*		
Shama (1)	Chestnut, white	(59) 476
Goldcrested Myna (3)	Gold white	(47) 373
Partridge 33± *cm.*		
Bronzewinged Jaçana (4)		(20) 158
Village Hen 46-76± *cm.*		
Black Bittern (2,4)	Buff	(4) 27
Bengal Florican (*breeding male*) (4)	Brown, white	(21) 155
Lesser Florican (*breeding male*) (4)	White	(21) 156
Vulture 91± *cm.*		
Imperial Eagle (6e)	Tawny, whitish buff	(12) 89

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PLATE 1

1. (1) GREAT CRESTED GREBE *Podiceps cristatus* M Duck-: 50 cm. Tailless, black ear tufts prominent in breeding plumage. Jheels and littoral waters. Chiefly N. and C. Subcontinent; southernmost, Andhra Pradesh (Anantagiri).

2. (2) LITTLE GREBE *Tachybaptus ruficollis* R Pigeon±: 23 cm. Squat and tailless, silky white underparts. Village tanks and ponds. Subcontinent. Absent Andamans.

3. (6) LARGE CORMORANT *Phalacrocorax carbo* RM Duck+: 80 cm. Black generally, yellow gular pouch. Inland waters and tidal lagoons. Occasionally high-altitude Himalayan lakes up to 3450 m. Subcontinent; Sri Lanka.

4. (7) INDIAN SHAG *Phalacrocorax fuscicollis* RM Duck+: 63 cm. Black, seen in large flocks. Jheels, rivers, reservoirs and estuaries. Subcontinent and Sri Lanka. Not Himalayas.

5. (8) LITTLE CORMORANT *Phalacrocorax niger* RM Crow+: 51 cm. Black with small white throat patch, long stiff tail. Lakes, reservoirs, tidal creeks. Subcontinent; Sri Lanka. Absent in Himalayas and N. Pakistan.

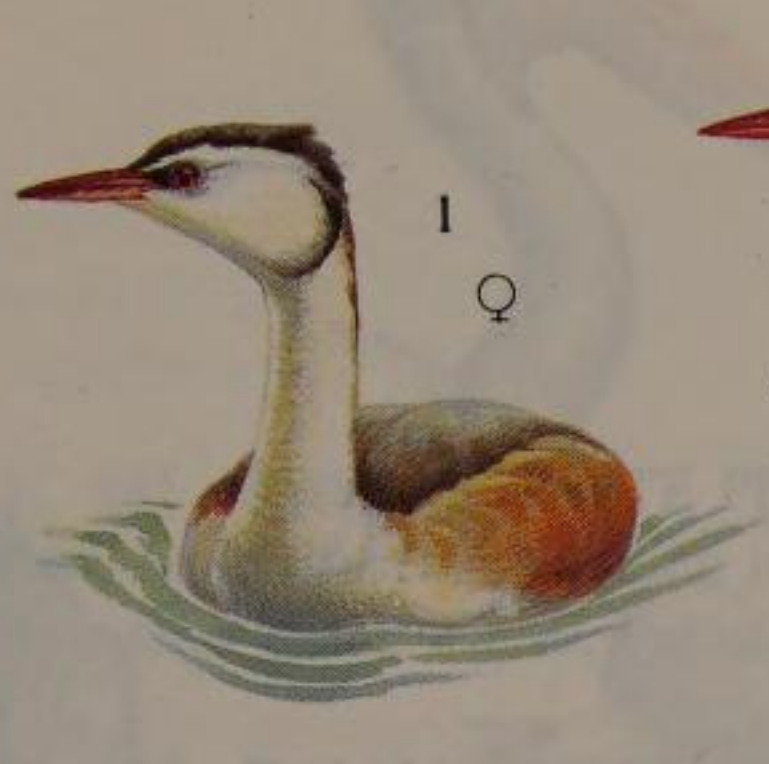
6. (9) DARTER or SNAKE BIRD *Anhinga rufa* RM Duck+: 90 cm. Slender snake-like neck and pointed dagger bill diagnostic. Lakes and reservoirs. Subcontinent; Sri Lanka.

Key to Abbreviations

M	-	Migrant
R	-	Resident
RM	-	Resident Migrant
Form	-	Sparrow, Bulbul, Myna, Pigeon, Partridge, Crow, Kite, Duck, Village Hen, Vulture
Size	-	Total length in cm.

The Serial number of species descriptions which follow the plates are given in parentheses.

Plate 1



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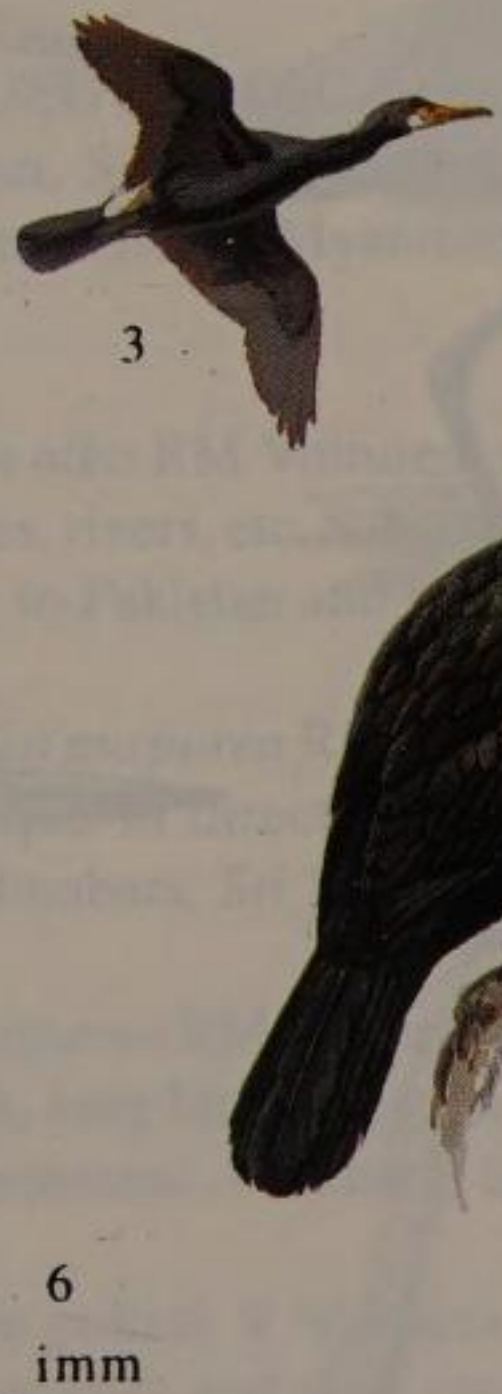

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Plate 2

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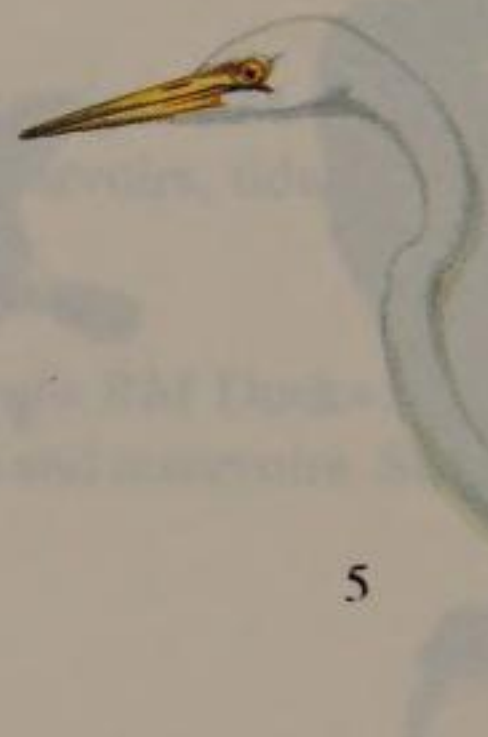

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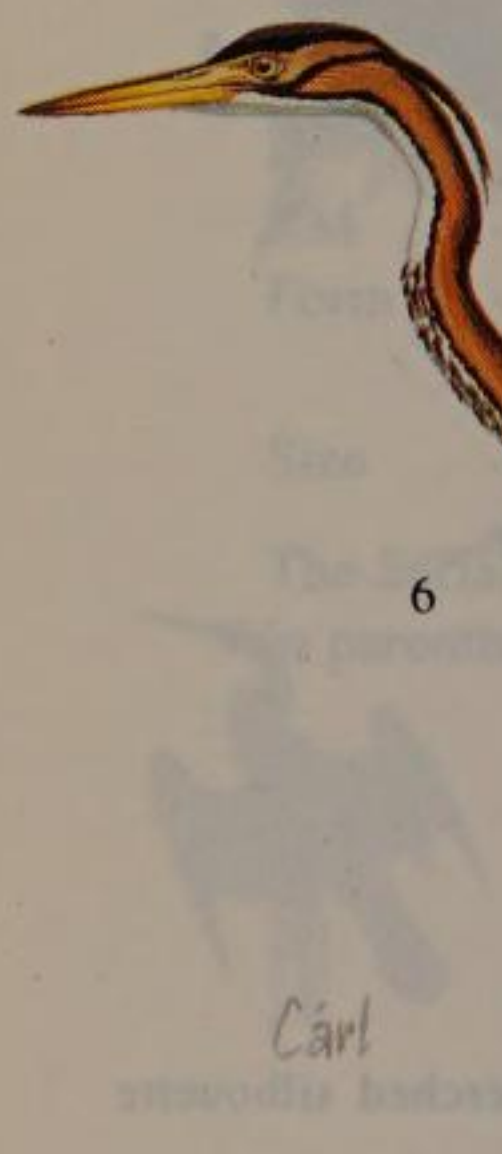

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PLATE 2

1. (3) ROSY or WHITE PELICAN *Pelecanus onocrotalus* RM Vulture+: 183 cm. Feathers on forehead ending in a point above bill. Legs pink. Large bodies of water. *Breeding:* Kutch *Winter:* Pakistan, N. and C. India.

2. (5) DALMATIAN PELICAN *Pelecanus philippensis crispus* M Vulture+: 183 cm. Forehead feathers ending in a concave crescent. Legs grey. N. India, Pakistan, Bangladesh.

3. (4) SPOTTEDBILLED PELICAN *Pelecanus philippensis* RM Vulture+: 152 cm. Brown nuchal crest. Black spots on upper mandible. Large lakes, reservoirs and rivers. Subcontinent; Sri Lanka; Nicobars (vagrant).

4. (10) GREAT WHITEBELLIED HERON *Ardea insignis* R Vulture+: 127 cm. Like grey heron but considerably larger. Swamps, lakes and rivers. NE. India, Bhutan, Nepal, Bihar north of Ganges, Bangladesh and N. Myanmar. One December record from Tamil Nadu.

5. (14) LARGE EGRET *Ardea alba* RM Vulture±: 91 cm. Snowy white, legs black, bill black and yellow or black. Marshes, rivers, etc. Subcontinent; Sri Lanka. *Winter:* Andamans, Nicobars(?), Maldives. Straggler to Pakistan and Uttar Pradesh.

6. (13) PURPLE HERON *Ardea purpurea* RM Vulture+: 97 cm; standing 70 cm. Bluish grey above. Appears bright purple in direct sunlight. Jheels, reedy lakes and rivers. Subcontinent; also Andamans, Nicobars, Sri Lanka.

7. (12) GREY HERON *Ardea cinerea* RM Vulture+: 98 cm; standing 75 cm. Conspicuous black dotted line on mid foreneck, long black occipital crest. Swamps, estuaries and rocky offshore islets. Subcontinent, Andamans, Nicobars, Sri Lanka; Maldives.

8. (11) GIANT HERON *Ardea goliath* V Vulture+: 142-152 cm. looks like a gigantic purple heron. Lakes, swamps, estuaries and tidal creeks. Isolated records from Pakistan, Madhya Pradesh, Bengal, Bangladesh and Sri Lanka.

PLATE 3

1. (15) LITTLE GREEN HERON *Ardeola striatus* R Village hen±: 46 cm. Blackish grey, crown and crest greenish black, chin and throat white. Inland waters and swamps. Subcontinent, Andamans, Nicobars, Lakshadweep, Sri Lanka, Maldives.

2. (22) NIGHT HERON *Nycticorax nycticorax* R Village hen+: 58 cm. Grey and black stocky bird with black crest. Crepuscular. The loud raucous *kwaark* call distinctive. Inland waters, estuaries, coastal lagoons and backwaters. Subcontinent; Andamans and Nicobars; Sri Lanka.

3. (16) PADDYBIRD or POND HERON *Ardeola grayii* R Village hen+: 46 cm. Earthy brown at rest. White wings, tail and rump flashing prominently in flight. Marshes, streams, paddyfields, ponds, etc. Subcontinent; Sri Lanka.

4. (17) CHINESE POND HERON *Ardeola bacchus* RM Village hen±: 52 cm. Breeding birds with black back and head, neck, nuchal crest maroon chestnut. Inland waters. NE. India; Bangladesh; Andaman Is.

5. (18) CATTLE EGRET *Bubulcus ibis* RM Village hen±: 51 cm. In pure white plumage separated from Little Egret by *yellow bill.* Head, neck, and back, orange buff in breeding season. Subcontinent, Andamans, Nicobars, Lakshadweep, Sri Lanka, Maldives.

6. (19) MEDIAN or SMALLER EGRET *Egretta intermedia* RM Village hen+: 80 cm. Pure white. Breeding birds with filamentous plumes on back and breast. Marshes, estuaries, swamps. Sub-continent; Andamans, Nicobars, Sri Lanka.

7. (21) INDIAN REEF HERON *Egretta gularis* RM Village hen±: 63 cm. Two colour phases, pure white and bluish slaty with white throat patch. Two backwardly drooping long crest plumes in the breeding season. Rocky seashores, tidal lagoons and mudflats, mangrove swamps. Pakistan, W. India, Sri Lanka, Lakshadweep Is. Rare on east coast.

8. (20) LITTLE EGRET *Egretta garzetta* R Village hen+: 63 cm. Pure white, with black bill, feet black and yellow. Two long, narrow crest plumes in the breeding season. Marshes, flooded paddyfields, etc. Subcontinent; Lakshadweep, Andamans and Nicobars; Sri Lanka; Maldives.

Plate 3

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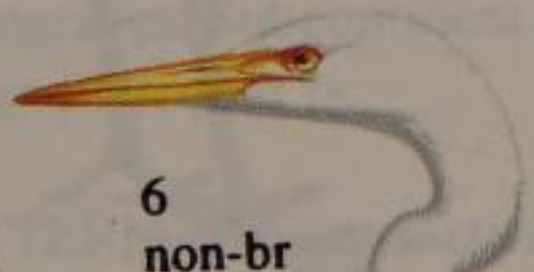
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PLATE 4

1. (24) LITTLE BITTERN *Ixobrychus minutus* RM Village hen-: 36 cm. In flight white shoulder patch contrasting with black wings diagnostic of male. Female chestnut brown. Marshes with dense reed-beds. Pakistan, N. India, Nepal and east to Assam. Kashmir up to 1800 m. Maharashtra.

2. (23) TIGER BITTERN *Gorsachius melanolophus* RM Village hen+: 51 cm. Ashy black crown and crest. Back chestnut-cinnamon barred with black. Marshes and streams in tropical evergreen forest. Subcontinent. Sri Lanka, Nicobar Is.

3. (25) CHESTNUT BITTERN *Ixobrychus cinnamomeus* RM Village hen-: 38 cm. Chestnut-cinnamon above. Chin and throat whitish with a dark median stripe down foreneck. Reed-beds, flooded paddyfields, etc. Rarely coastal backwaters. Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

4. (26) YELLOW BITTERN *Ixobrychus sinensis* RM Village hen-: 38 cm. Yellowish fawn body contrasting with black wings in flight diagnostic. Reed-beds, standing paddy, swamps, etc. Subcontinent, Andamans, Nicobars, Sri Lanka.

5. (27) BLACK BITTERN *Ixobrychus flavicollis* RM Village hen±: 58 cm. Black and rufous with a conspicuous buff and white cheek patch and ochre yellow bands on sides of neck. Reedy marshes. Subcontinent up to 1200 m and Sri Lanka. Maldives (winter). Absent in Andaman and Nicobar Is.

6. (28) BITTERN *Botaurus stellaris* M Village hen+: 71 cm. Tawny buff, barred or mottled with black. Swampy reed-beds. Subcontinent, Sri Lanka.

PLATE 5

1. (29) PAINTED STORK *Mycteria leucocephala* RM Vulture± standing 93 cm. The only white stork with delicate rose pink on shoulders and wing. Large marshes. Subcontinent; Sri Lanka.

2. (30) OPENBILL STORK *Anastomus oscitans* R Duck+: 81 cm, standing 68 cm. Reddish black bill with arching mandibles with gap in between, diagnostic. Lakes and marshes. Subcontinent; Sri Lanka.

3. (32) WHITE STORK *Ciconia ciconia* M Vulture+: standing 106 cm. Pure white except for black wings. Bill and legs red. Marshes, moist grassland. Pakistan, NW. India, Gangetic Plain, east to Bangladesh and Assam, south decreasingly through the Peninsula.

4. (31) WHITENECKED STORK *Ciconia episcopus* R Vulture+: standing 106 cm. A glistening black stork with conspicuous white neck and black cap. Flooded grasslands, irrigated fields, marshes in forest, etc. Subcontinent; Sri Lanka.

5. (33) BLACK STORK *Ciconia nigra* M Vulture+: standing 106 cm. Black glossed with green, bronze, and purple above. White below. Marshes and near rivers. Pakistan and N. India, south to Deccan. Single records from Andhra, Kerala and Sri Lanka.

6. (35) ADJUTANT STORK *Leptoptilos dubius* RM and nomadic. Vulture+: standing 120-150 cm. Black, grey and white stork with massive bill. Long, naked, ruddy pendent breast pouch distinctive. Marshes. N India west to Pakistan (Sind) in SW. monsoon, south to Deccan. Bangladesh (sporadic).

7. (36) LESSER ADJUTANT *Leptoptilos javanicus* RM Vulture+: standing 110-120 cm. Glossy black above white below. *No neck pouch.* Swamps and flooded land. N. India Bangladesh (sporadic) Kerala. Sri Lanka (declining).

8. (34) BLACKNECKED STORK *Ephippiorhynchus asiaticus* R Vulture+: standing 135 cm. Black head, neck, bill, white underparts and black and white wings diagnostic. Iris of male brown, female yellow. Marshes and large rivers. Subcontinent. Sri Lanka (endangered).

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PLATE 6

1. (37) WHITE IBIS *Threskiornis aethiopica* R Village hen±: 75 cm. Body white, head, neck and long curved bill black. Rivers, marshes and inundated land. Subcontinent; Sri Lanka.

2. (38) BLACK IBIS *Pseudibis papillosa* R Village hen±: 68 cm. Body black with white shoulder patch and brick red legs. A triangular patch of crimson warts on the crown. River banks, stubble fields and jheel margins. Pakistan, and India east through Bangladesh to Myanmar, south to Deccan and Karnataka.

3. (39) GLOSSY IBIS *Plegadis falcinellus* RM Village hen±: 52 cm. Breeding birds glistening black above and chestnut below. *Head feathered.* Non-breeding birds with head and neck brown streaked with white. Marshes and river banks. Pakistan, and India east to Bangladesh south to Deccan. Sri Lanka, Maldives.

4. (40) SPOONBILL *Platalea leucorodia* RM Duck±: standing 60 cm. A snow white bird with black legs and prominent spatulate bill. A long nuchal crest in the breeding season. Marshes and rivers. Subcontinent; Sri Lanka.

5. (42) LESSER FLAMINGO *Phoeniconaias minor* RM Duck+: 90-105 cm. Upper mandible not overlapping lower. Dark coloured bill with crimson feathers at base. Shorter, trailing legs diagnostic in flight. Brackish lakes. NW. India; Pakistan. Straggler elsewhere. *Breeding:* Kutch.

6. (41) FLAMINGO *Phoenicopterus roseus* RM Vulture+: 140 cm. A long necked rosy white bird with a heavy pink bill. In flight outstretched legs and neck and black bordered scarlet wings distinctive. Brackish lakes and lagoons, sea coast, estuaries, mudflats. Subcontinent; Sri Lanka. *Breeding:* Great Rann of Kutch.

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PLATE 7

1. (43) GREYLAG GOOSE *Anser anser* M Duck+: 81 cm. The grey rump and white nail to the flesh pink bill distinctive. Large jheels and lakes. Pakistan, N. and C.. India to Manipur, south to Chilka lake, Orissa. Sri Lanka (once).

2. (44) BARHEADED GOOSE *Anser indicus* RM Duck+: 75 cm. The two broad black bars across nape diagnostic. Large jheels and rivers. Pakistan, N. India east through Bangladesh to Myanmar, south to Karnataka, Andhra and Tamil Nadu. *Breeding:* Ladakh.

3. (47) RUDDY SHELDUCK or BRAHMINY DUCK *Tadorna fcrruginea* RM Duck+: 66 cm. Orange brown duck with paler head and neck. Black collar at base of neck in male. Wings white, black and green. Tail black. Lakes and rivers. *Breeding:* Subcontinent; Ladakh, rare in S. India. Sri Lanka (occasional).

4. (48) COMMON SHELDUCK *Tadorna tadorna* M Duck±: 61 cm. A strikingly coloured white, black and chestnut duck with bright red bill and pink legs. Lakes and large rivers. Pakistan, India, Nepal, south to Kutch, the Deccan and Orissa east through Bangladesh to Myanmar.

5. (68) WHITEWINGED WOOD DUCK *Cairina scutulata* R Duck+: 81 cm. Head and neck white speckled with black. Otherwise glossy black and dark chestnut brown. White patch on wing-shoulder diagnostic. Secluded pools, and marshes in dense forest. Formerly resident in Bangladesh, Assam, Arunachal Pradesh and Manipur; now probably confined chiefly to Arunachal Pradesh.

6. (67) NAKTA or COMB DUCK *Sarkidiornis melanotos* R Duck+: 76 cm. A large glossy blue black duck. White below. Head and neck white speckled with black. Swollen knob at base of drake's bill diagnostic. Reedy tanks in well-wooded plains. Pakistan and India from Nepal terai south to Karnataka and east through Bangladesh to Myanmar. Formerly resident in Sri Lanka, but now believed extinct.

PLATE 8

1. (45) LESSER WHISTLING TEAL or TREE DUCK *Dendrocygna javanica* R Duck-: 42 cm. Pale brown and chestnut coloured duck. Upper tail-coverts chestnut. Marshes, reservoirs, reedy ponds. Subcontinent, Sri Lanka.

2. (46) LARGE WHISTLING TEAL *Dendrocygna bicolor* RM Duck-: 51 cm. Similar in colour to Lesser Whistling Teal but *upper tail-coverts white*. Reedy jheels and reservoirs. Pakistan, N.India east to Manipur and Bangladesh; south to the Deccan, Andamans, Nicobars, Sri Lanka. Rare.

3. (50) PINTAIL *Anas acuta* M Duck-: 56-74 cm. Long pin-like pointed feathers projecting beyond tail diagnostic of drake. Duck mottled brown. No pin feathers. Reedy jheels, brackish lagoons and estuaries. Subcontinent; Sri Lanka; Maldives.

4. (49) MARBLED TEAL *Marmaronetta angustirostris* RM Duck-: 48 cm. Predominantly greyish brown, spotted or marbled with buff or black. Large brown patch from eye to nape. Reedy jheels. *Breeding:* Pakistan. *Winter:* N. India east to Assam south to Pune.

5. (51) COMMON TEAL *Anas crecca* M Half-grown Duck±: 38 cm. Drake has from eye to nape a broad white bordered metallic green band. A tricoloured, black, green and buff wing speculum. Jheels and marshes. Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

6. (52) SPOTBILL or GREY DUCK *Anas poecilorhyncha* RM Duck±: 61 cm. Scaly patterned light and dark brown plumage. White and metallic green speculum. Yellow tipped dark bill with two orange red spots at base. Shallow jheels and shallow reservoirs. Subcontinent: south to Karnataka. Up to 1800 m in Kashmir. Andamans (once); Sri Lanka (occasional).

7. (53) BURMESE SPOTBILL *Anas poecilorhyncha haringtoni* RM Duck±: 60 cm, Identical to Indian spotbill with the underparts less spotty. Red spot on base of bill absent or small. Shallow jheels and marshes. Eastern Assam eastwards.

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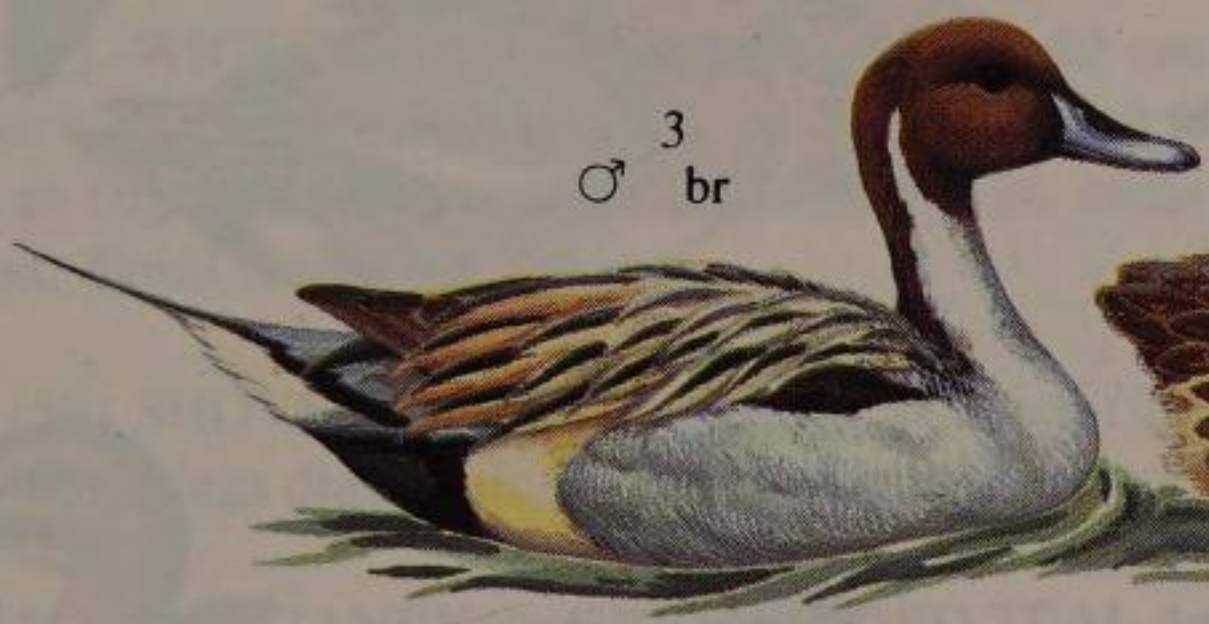
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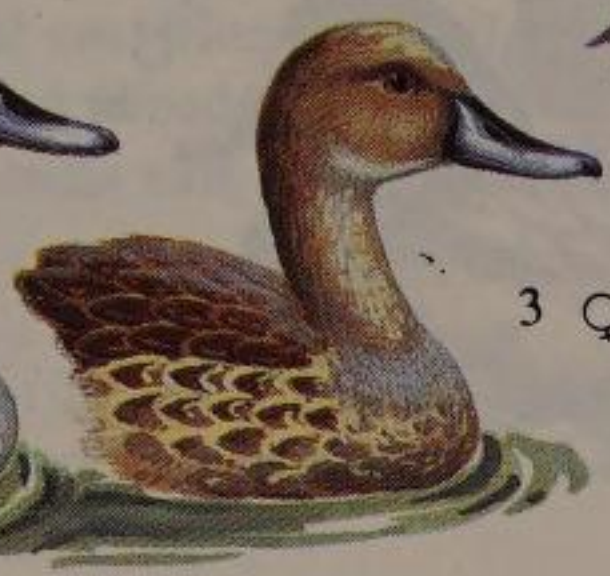
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PLATE 9

1. (54) MALLARD *Anas platyrhynchos* RM Duck±: 61 cm. Drake with glistening dark green head and neck separated from chestnut breast by white collar. Blue 'mirror' on wing conspicuous in flight. Shallow jheels and marshes. Pakistan, N. India, east through Bangladesh, south to N. Maharashtra.

2. (55) GADWALL *Anas strepera* M Duck-: 51 cm. A glistening white patch on edge of wing diagnostic in flight. At rest a chestnut patch in front of the black and white speculum is a good pointer. Reedy marshes. Subcontinent; rare in S. India. Sri Lanka (once).

3. (56) FALCATED TEAL *Anas falcata* V Duck-: 51 cm. Bushy mane-like nuchal crest diagnostic of the male in breeding plumage. Jheels. Pakistan, and NE. India. One record each from Gujarat and Nepal.

4. (57) WIGEON *Anas penelope* M Duck-: 49 cm. Blue grey bill, small and narrow. Drake with cream coloured patch on fore crown. A broad white shoulder patch on wing seen in flight. Reedy marshes. Pakistan and N. India east through Bangladesh, south to Orissa, Tamil Nadu; Sri Lanka.

5. (59) SHOVELLER *Anas clypeata* M Duck-: 51 cm. Broadened shovel-shaped bill and orange legs diagnostic. All types of inland waters. Subcontinent; Sri Lanka; Maldives.

6. (58) GARGANEY or GREYWINGED TEAL *Anas querquedula* M Duck-: 41 cm. A pink brown white speckled head with conspicuous white eyebrows (Drake). Marshes, reservoirs and lakes. Subcontinent; Sri Lanka.

7. (60) PINKHEADED DUCK *Rhodonessa caryophyllacea*. Duck±: 60 cm. Partially tufted bright pink head and bill diagnostic. Jheels and swampy lowland grass jungles. Formerly resident from Bihar to Assam, Manipur and Orissa. Had straggled to Punjab, Maharashtra, Andhra Pradesh, Tamil Nadu. Last reliable wild record 1935. Extinct (?).

8. (61) REDCRESTED POCHARD *Netta rufina* M Duck-: 54 cm. Head and fluffy mop-like crest rich chestnut and golden orange with crimson bill. Large jheels and reservoirs. Pakistan and NW. India, decreasingly eastward to Assam, and southward to Tamil Nadu.

PLATE 10

1. (62) COMMON POCHARD *Aythya ferina* M Duck-: 48 cm. Absence of white wing bar distinguishes both sexes from other pochards. Open jheels and reservoirs. Pakistan and NW. India, decreasingly eastward to Bangladesh, Assam and associated states, and southward to Karnataka and Pondicherry.

2. (63) WHITE-EYED POCHARD *Aythya nyroca* RM Duck-: 41 cm. Dark brown with a whitish wing bar conspicuous in flight. Abdomen seen as oval white patch in flight diagnostic. Iris white in adult male only. Jheels and reservoirs. *Breeding:* Kashmir and Ladakh. *Winter:* Pakistan and NW. India, Manipur, Deccan, Kerala; Maldives; Bangladesh.

3. (64) TUFTED POCHARD *Aythya fuligula* M Duck-: 46 cm. Contrasty black and white plumage of drake and occipital tuft identify it at rest. In flight a broad white band along trailing edge of wing in both sexes. Open jheels and reservoirs. Pakistan, Nepal and N. India, east through Bangladesh to Manipur, south decreasingly to Karnataka, Pondicherry, Sri Lanka, Maldives.

4. (65) SCAUP DUCK *Aythya marila* V Duck-: 43 cm. In breeding plumage drake similar to tufted duck but without tuft. In eclipse brown like the female but more heavily vermiculated and without the female's white facial band. In India on freshwater lakes; elsewhere largely a sea duck. Pakistan, N. India south to Maharashtra, Madhya Pradesh, east through Bangladesh to Myanmar.

5. (66) COTTON TEAL *Nettapus coromandelianus* R Partridge±: 33 cm. Smallest of our ducks. Bill goose-like. Black above. Head, etc., white with a prominent black collar and white wing bar, both of which the paler female lacks. Jheels and ponds. Subcontinent, Andamans (straggler), Sri Lanka, Maldives.

6. (69) SMEW *Mergus albellus* M Duck-: 46 cm. Drake white with a glossy black eye patch and a drooping nuchal crest. Duck has nuchal crest, forehead, crown and nape, chestnut red. Clear Himalayan foothill streams. Pakistan, Nepal terai and N. India east to Assam and south to Gujarat and Orissa. Rare.

7. (70) GOOSANDER or EASTERN MERGANSER *Mergus merganser* RM Duck+: 66 cm. Slender neck, narrow pointed red bill and red legs diagnostic. Large rivers, lakes and fast-flowing streams. Pakistan and N. India south to Bombay and Madhya Pradesh (occasional), and east to Assam. *Breeding*: Ladakh.

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PLATE 11

1. (71) BLACKWINGED KITE *Elanus caeruleus* R Crow-: 33 cm. A black line above the eyes and black patches on shoulders conspicuous at rest and in flight. Deciduous biotope up to *c.* 1300 m. Subcontinent; Sri Lanka.

2. (72) BLYTH'S BAZA or BROWN LIZARD HAWK *Aviceda jerdoni* R Crow+: 48 cm. A distinctive upstanding narrowly white tipped black crest. Generally brown. Prominent black mesial stripe. Tropical evergreen foothills. Range disjunct, NE. India, Bangladesh up to *c.* 1800 m; South India; Sri Lanka, *c.* 150 to 900 m.

3. (73) INDIAN BLACKCRESTED BAZA *Aviceda leuphotes* RM Pigeon±: 33 cm. Predominantly black and white with conspicuous black crest, white and chestnut patches on wings. Tropical evergreen foothills forest. Range disjunct, more or less overlapping that of 72 *q.v.*

4. (74) HONEY BUZZARD *Pernis ptilorhyncus* RM Kite±: 68 cm. Colour highly variable. Tail rounded, greyish with broad black terminal band. Head slim, neck long. Semi-desert to semi-evergreen forest, and cultivation. Subcontinent; up to *c.* 1800 m in the Himalayas. Sri Lanka, Maldives.

5. (75) COMMON PARIAH KITE *Milvus migrans* R 61 cm. Distinguished by its forked tail. Colour brown. Chiefly urban localities. Subcontinent; Andamans (Vagrant); Sri Lanka.

6. (76) BRAHMINY KITE *Haliastur indus* R Kite-: 48 cm. Bright rusty red above white elsewhere, immature chocolate brown. Tail rounded. Sea coast and inland waters. Subcontinent (except Baluchistan), Andamans; Sri Lanka.

7. (78) CRESTED GOSHAWK *Accipiter trivirgatus* R Crow+: 40-46 cm. Dark brown with blackish grey nuchal crest. Tail with four brown bars. Conspicuous mesial stripe from chin to breast. Open deciduous and semi-evergreen foothills forest. Himalayas (up to *c.* 2000 m) from Garhwal eastwards; south to the Godavari river; SW. India from Goa, southwards; Sri Lanka.

8. (77) SHIKRA *Accipiter badius* R Crow-: 30-34 cm. Blue grey above, white barred brown below. Female brownish above. Tail black barred. Light deciduous forest, village groves, etc. Subcontinent, Bangladesh; Sri Lanka and Nicobars.

9. (79) SPARROW-HAWK *Accipiter nisus* RM Crow-: 31-36 cm. Difficult to separate from Shikra and Besra Sparrow Hawk. Lacks mesial stripe. A white supercilium. Well wooded country. Subcontinent.

10. (80) BESRA SPARROW-HAWK *Accipiter virgatus* R Crow-: 29-34 cm. Distinguished by bold black mesial stripe on white throat. Heavy evergreen and moist-deciduous forest. W. Ghats, E. Ghats, Sri Lanka.

PLATE 12

1. (81) LONGLEGGED BUZZARD *Buteo rufinus* RM Kite±: 61 cm. Resembles immature Brahminy Kite, colour variable shades of brown, pale creamy rufous tail with indistinct cross bars and broad terminal band distinctive. *Summer:* precipitous rocky ground with forest. *Winter:* open country and cultivation. Pakistan; Himalayas; southward in the Peninsula to Karnataka and Tamil Nadu, Sri Lanka.

2. (82) BUZZARD *Buteo buteo* M Kite-: 51-56 cm. Easily confused with other buzzards due to the great variability in their plumages. Nepal, Simla and eastern Himalayas, eastern India, Peninsular India, south to Kerala, Tamil Nadu. Sri Lanka.

3. (83) WHITE-EYED BUZZARD *Butastur teesa* R Crow±: 43 cm. Eyes white or yellowish white and conspicuous. White neck patch and buff shoulder patches additional clues. Open dry forest, scrub and cultivation, Subcontinent.

4. (89) IMPERIAL EAGLE *Aquila heliaca* RM Vulture-: 81-90 cm. Adults glossy blackish brown with tawny buff to whitish head and neck. Immature birds brown with underside conspicuously streaked. Open treeless country. Pakistan and NW India. In winter south to Saurashtra (Gujarat), east to Nepal, Bangladesh. Maharashtra (once).

5. (90) TAWNY EAGLE *Aquila vindhiana* R Kite+: 63-71 cm. Varying shades of brown, with typical flat eagles head, round tail, feathered legs. Flight feathers splayed in flight. Semi-desert and dry- and moist-deciduous country. Baluchistan and NWFP east to Nepal terai and Bangladesh, south to Kanara and Tamil Nadu.

6. (92) LESSER SPOTTED EAGLE *Aquila pomarina* R Kite+: 61-66 cm. Difficult to separate from 91. Under tail coverts not white. Open wooded country and cultivation. Chiefly the Gangetic plain and Nepal terai, east through Bangladesh to Myanmar, south to Gujarat, Madhya Pradesh, Orissa and Bombay.

7. (91) GREATER SPOTTED EAGLE *Aquila clanga* RM Kite+: 64-72 cm. Any large black eagle without a whitish head seen near water is likely to be of this species. Pure white under tail coverts. Large marshes, jheels and canals. Pakistan, N. India and Nepal, east through Bangladesh to Myanmar, south to *c.* 20°N latitude.

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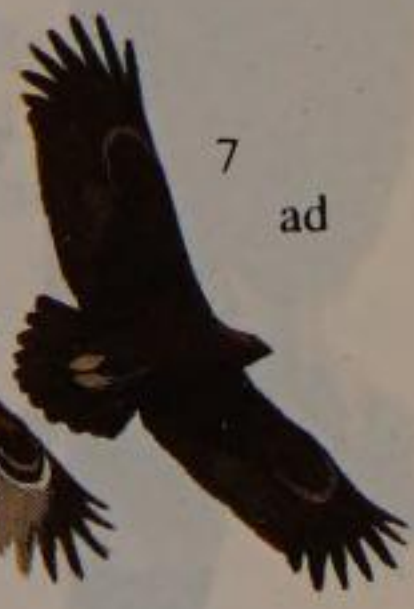
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Plate 13

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PLATE 13

1. (84) HODGSON'S or FEATHER-TOED HAWK-EAGLE *Spizaetus nipalensis* RM Kite+: 72 cm. A distinctive crest of long black feathers. White tipped in the young. Tarsus fully feathered. Forests. Himalayas (between *c.* 600 and 2400 m), N.E. India. Occasional in northern plains and Peninsula in winter. A resident race in the evergreen forests of Western Ghats. Also Sri Lanka.

2. (85) CRESTED HAWK-EAGLE *Spizaetus cirrhatus* R Kite+: 72 cm. Normally brown above and white below with black streaks on throat and chocolate streaks on breast. Long narrow crest projecting behind head. Deciduous and semi-evergreen forest. Lower Himalayas (below *c.* 1800 m) from Garhwal to Arunachal Pradesh. Gangetic Plain and southward to Indian peninsula to Andamans. Also Sri Lanka.

3. (87) BOOTED HAWK-EAGLE *Hieraaetus pennatus* RM Kite-: 50-54 cm. Two colour phases. Pale buff to umber brown above, or brown. Below white with or without black streaks. Well-wooded country hill and plain, and semi-desert. W. Himalayas above 1000 m. *Winter:* Subcontinent; Sri Lanka (once).

4. (86) BONELLI'S HAWK-EAGLE *Hieraaetus fasciatus* R Kite+: 68-72 cm. Crestless slender eagle umber brown above white to buff below. Tail with black terminal band. Well-wooded country. Subcontinent, up to 2400 m in Himalayas; Assam (?) east of N. Bengal duars. Sri Lanka (Once).

5. (93) BLACK EAGLE *Ictinaetus malayensis* R Kite+: 69-81 cm. Black with grey barred tail. Cere and legs yellow. White patch under eye diagnostic. Partial to hill forest. Lower Himalayas (up to *c.* 2700 m); hills south of the Brahmaputra; continental and peninsular India south to Kanyakumari Dt.; Sri Lanka.

6. (88) RUFOUSBELLIED HAWK-EAGLE *Hieraaetus kienerii* R Kite+: 53-61 cm. A distinct short crest, glossy black above, white streaked with black on breast. Rich rufous chestnut streaked with black below. Evergreen and moist-deciduous forest. Range discontinuous: W. Ghats from Goa to Tamil Nadu. Sri Lanka; Nepal to Arunachal Pradesh, Assam; Bangladesh, Myanmar.

7. (108) CRESTED SERPENT EAGLE *Spilornis cheela* R Kite+: 74 cm. A prominent black and white nuchal crest. Ocellated and finely barred with black below. In flight white bar on tail and on wings diagnostic. Well-wooded country. Himalayan foothills and Gangetic Plain; peninsular India; Sri Lanka.

8. (107) SHORT-TOED EAGLE *Circaetus gallicus* R Kite+: 63-68 cm. Brown above, white below barred with brown. Head large and owl like. Legs unfeathered. Feathers of face upwardly directed, bristly. Cultivated plains, stony deciduous scrub, semi-desert and hills to *c.* 2300 m. Subcontinent; not east of Bangladesh or Sri Lanka.

PLATE 14

1. (94) WHITEBELLIED SEA EAGLE *Haliaeetus leucogaster* R Kite+: 66-71 cm. Ashy brown above with head, neck, underparts and terminal third of tail white. In flight black border to wings and wedge shaped tail diagnostic. Sea coast, tidal creeks and estuaries. Offshore islands and peninsular seaboard from Bombay to Bangladesh; Sri Lanka, Lakshadweep, Andaman and Nicobar Is., Gujarat coast (vagrant); also Rajasthan (Bharatpur).

2. (95) PALLAS'S or RINGTAILED FISHING EAGLE *Haliaeetus leucoryphus* RM Kite+: 76-84 cm. Dark brown, with golden brown head and broad white tail band, conspicuous in flight. Large rivers, lakes and jheels. Pakistan, and N. India east through Bangladesh, south to Chilka Lake, Orissa in the east and Maharashtra (Bombay) in the west.

3. (96) GREYHEADED FISHING EAGLE *Ichthyophaga ichthyaetus* R Kite+: 74 cm. Head and neck grey, underparts and tail white. Tail with broad black terminal band diagnostic in flight. Rivers, lakes, reservoirs in well-wooded country. Gangetic Plain east of Delhi south to Kerala, Andamans, Sri Lanka; Bangladesh to Myanmar, .

4. (106) MARSH HARRIER *Circus aeruginosus* M Kite-: 54-59 cm. Male dark brown with pale rufous head. Female dark chocolate brown with creamy buff cap and buff at shoulder. Marshes, flooded ricefields, up to 2000 m in the hills. Subcontinent, Andamans, Nicobars (?), Lakshadweep, Sri Lanka, Maldives.

5. (103) PALE HARRIER *Circus macrourus* M Kite-: 46-51 cm. Male pale ashy grey with black tipped wings. Female brown with owl like ruff round head. Undulating country; plateaux, grassy hillsides, cultivation and semi-desert. Subcontinent, Lakshadweep, Andamans, Sri Lanka, Maldives.

6. (104) MONTAGU'S HARRIER *Circus pygargus* M Kite-: 46-49 cm. Similar to pale harrier but darker and tinged with brown. Below white tinged with chestnut. A narrow black transverse wing bar diagnostic. Swamps, grassy plains and cultivation. Subcontinent, Andamans, Lakshadweep; Sri Lanka; Maldives.

7. (105) PIED HARRIER *Circus melanoleucos* RM Kite-: 46-49 cm. Male with contrasting black and white plumage. Female brown above with whitish rump. Grasslands, ricefields, margins of jheels. Chiefly E. Subcontinent. *Breeding:* Assam, Madhya Pradesh (*Winter*).

8 (109) OSPREY *Pandion haliaetus* RM Kite-: 56 cm. Brown with brown and white head and diagnostic brown breast band on white underparts. Lakes, reservoirs, jheels, estuaries. Subcontinent, Andamans, Nicobars, Lakshadweep, Sri Lanka, Maldives.

Plate 14

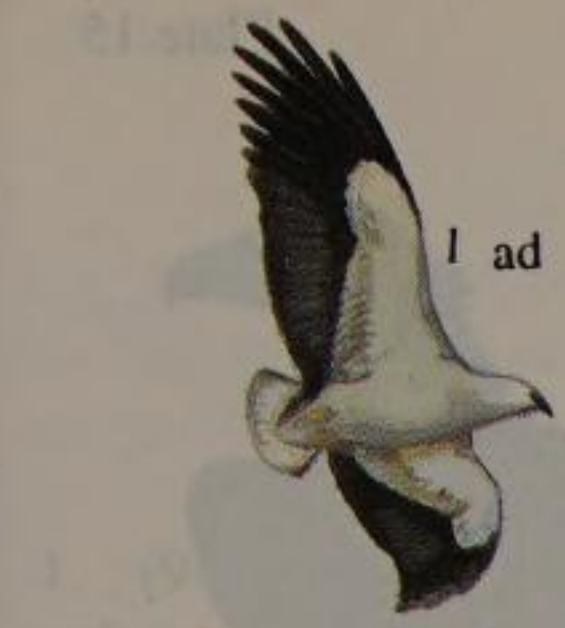
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PLATE 15

1. (97) BLACK or KING VULTURE *Sarcogyps calvus* R 84 cm. Black turkey-like vulture with deep scarlet naked head, neck and legs. In flight white band on underside of wing, white patches on thigh and base of neck diagnostic. Open country, cultivation and semi-desert. Subcontinent up to *c.* 2000 m. Absent in Sri Lanka.

2. (98) CINEREOUS VULTURE *Aegypius monachus* RM Vulture+: 100-110 cm. Massive blackish brown vulture, with pinkish naked neck with black ruff. Semi-desert. Baluchistan, Himalayas, Assam. Vagrant in Sind, Kutch, Gujarat, Madhya Pradesh, Maharashtra and Kerala (winter).

3. (99) INDIAN GRIFFON VULTURE *Gyps fulvus* RM Vulture+: 110-122 cm. Huge cinnamon brown vulture. Head with yellowish white hair-like feathers and down. Distinctive white ruff at base of neck. Semi-desert country and bare mountains. *Breeding:* Kashmir, *Winter:* Pakistan, NW. India, Nepal up to *c.* 3000 m, W. Bengal, Assam and Deccan (occasional).

4. (100) INDIAN LONGBILLED VULTURE *Gyps indicus* R 92 cm. Distinct white ruff at base of neck, head, nape and neck naked (Himalayan race) covered with hair like feathers or down (Peninsular race). Pale underside and black trailing edge of underwing distinguishes it from whitebacked vulture in flight. Open countryside. Subcontinent. Absent in Sri Lanka.

5. (101) WHITEBACKED or BENGAL VULTURE *Gyps bengalensis* R 90 cm. White back and white band on underside of wings diagnostic. Open countryside. Subcontinent, up to *c.* 2500 m. Absent in Sri Lanka.

6. (102) WHITE SCAVENGER VULTURE or PHARAOH'S CHICKEN *Neophron percnopterus* RM Kite±: 64 cm. White kite-like vulture with naked yellow head and bill. Immature birds brown. Wedge shaped tail diagnostic. Near towns and villages. Subcontinent up to *c.* 2500 m. Absent in Sri Lanka.

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PLATE 16

1. (111) WHITELEGGED or PIED PIGMY FALCONET *Microhierax melanoleucos* R Bulbul±: 20 cm. Pied and without white collar on hindneck. Affects forest edges. Plains and foothills of eastern India.

2. (110) REDBREASTED FALCONET *Microhierax caerulescens* R Bulbul±: 18 cm. A broad white collar on hindneck. Ferruginous on chin, throat, thighs. Himalayan foothills from Kumaon to Arunachal Pradesh.

3. (112) LAGGAR FALCON *Falco biarmicus jugger* RM Kite-: 43-46 cm. Ashy brown with white streaked underparts, narrow brown moustachial streaks running down in front and below eyes. White breast and brown and white pattern on underwings diagnostic in flight. Dry open country and cultivation. Subcontinent.

4. (115) HOBBY *Falco subbuteo* RM Pigeon±: 31-34 cm. A sleek streamlined slaty grey falcon with black head and rusty white below. Streaked with black. Thighs and below tail rufous. Open wooded country and semi-desert. Pakistan, Nepal, Bangladesh and India south to Belgaum.

5. (116) ORIENTAL HOBBY *Falco severus* R Pigeon-: 27-30 cm. Differs from hobby in the breast and underparts being ferruginous. Well-wooded foothills country. Himalayas; Bangladesh; NE. India; *c.* 1800-2400 m. Calcutta and Kerala (winter); Sri Lanka (Straggler).

6. (114) SHAHEEN FALCON *Falco peregrinus peregrinator* R Kite-; Crow+: 38-46 cm. Resident race of peregrine. Seen in different habitat. Rugged hilly country. Subcontinent, also Sri Lanka and Nicobars.

7. (113) PEREGRINE FALCON *Falco peregrinus* M Kite-; Crow+: 40-48 cm. Conspicuous slaty black head, black cheek stripes contrasting with white chin and throat diagnostic. Near rivers, marshes and lagoons. Subcontinent, Lakshadweep, Andamans (?), Nicobars (?); Sri Lanka (winter).

8. (119) KESTREL *Falco tinnunculus* RM Pigeon±: 36 cm. Brick red above. Head grey, light buff below. Pointed black wings and rounded grey tail with black terminal band. Grassland, semi-desert, cultivation and rocky regions. Subcontinent.

9. (118) REDLEGGED or AMUR FALCON *Falco amurensis* (Passage) M Pigeon-: 28-31 cm. Shades of grey above and below with rusty red vent; thighs and orange red orbit, cere and legs. Open country and grazing land. NE. India, Gujarat, the Indian peninsula; Bangladesh. Sri Lanka (straggler).

10. (117) REDHEADED MERLIN *Falco chicquera* R Pigeon±: 31-36 cm. The conspicuous chestnut head is diagnostic. Open country with groves of trees and cultivation. Subcontinent.

PLATE 17

1. (124) COMMON or GREY QUAIL *Coturnix coturnix* RM Partridge-: 20 cm. A plumb, squat almost tailless pale brown bird with buff spear-shaped streaks. An anchor shaped black mark on the male's throat. Grassland and standing crops. Subcontinent; not Sri Lanka. Race *japonica* winters in NE. India.

2. (125) BLACKBREASTED or RAIN QUAIL *Coturnix coromandelica* R Quail-: 18 cm. Upper breast and often centre of abdomen black. Female similar to common quail but both sexes lack the buff and brown cross bars on the primaries of the latter. Grass and scrub, moist grassland and standing crops. Subcontinent up to *c.* 2000 m. Sri Lanka occasional, winter.

3. (126) BLUEBREASTED QUAIL *Coturnix chinensis* R Quail-: 14 cm. Male largely slaty blue marked with buff. Legs bright yellow. Female similar to grey quail but barred with black. Swampy grassland and grass-and-scrub. Subcontinent east and south of a line from Bombay to Simla; Sri Lanka; Nicobar Is.

4. (127) JUNGLE BUSH QUAIL *Perdicula asiatica* R Quail-: 17 cm. Fulvous brown above streaked and mottled with buff. Below white barred with black. Female pinkish rufous below. Both sexes with chestnut supercilium and bright chestnut throat patch. Grass-and-scrub jungle and open deciduous secondary forest. Practically entire Subcontinent, plains and hills up to *c.* 1250 m. Sri Lanka.

5. (128) ROCK BUSH QUAIL *Perdicula argoondah* R Quail-: 17 cm. Throat brick red, lacks supercilium. Open semi-desert and thorn-scrub country, preferably drier and stonier facies than Jungle Bush Quail's but often overlapping. Practically entire Subcontinent; not Sri Lanka.

6. (129) PAINTED BUSH QUAIL *Perdicula erythrorhyncha* R Quail-: 16 cm. Brightly coloured quail with deep red bill and legs. Low hilly deciduous biotope. Bihar, W Bengal, Orissa, W. Madhya Pradesh and E. Maharashtra; W. Ghats from Khandala southward to Kerala, Tamil Nadu. E. Ghats (Andhra).

7. (138) COMMON or BLUE LEGGED BUSTARD-QUAIL *Turnix suscitator* R Quail Male 15 cm. Female slightly larger. Blue grey bill and legs and yellowish white eyes diagnostic. Grassland and scrub jungle and open light deciduous forest. Entire Subcontinent in suitable biotope. Sri Lanka ssp. *leggei*.

8. (136) LITTLE BUSTARD-QUAIL *Turnix sylvatica* R Quail-: Male 13 cm; female slightly larger. Separated from other three toed quails by its pointed tail. Grass-and-scrub jungle. From the Punjab Salt Range to Nagaland, Manipur and Chittagong, and from Nepal south to Kerala. Sri Lanka? Up to *c.* 2400 m.

9. (137) INDIAN or YELLOWLEGGED BUTTON QUAIL *Turnix tanki* R Quail-: Male 15 cm; Female slightly larger. Orange rufous half collar of female and bright yellow legs are diagnostic. Grassland with scrub, bamboo jungle and standing crops. Entire Subcontinent east of Sind and NWFP of Pakistan. Andaman and Nicobar Is.

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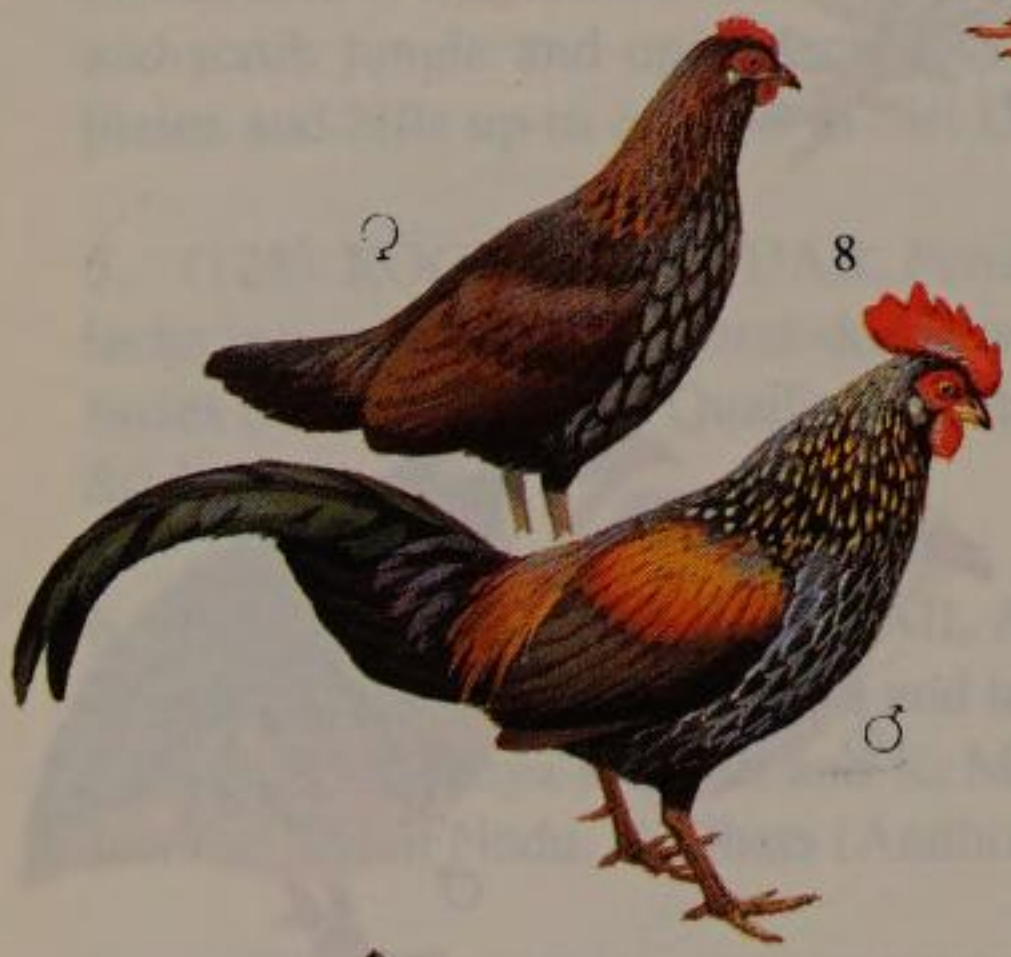
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Note: Partridge & Spurfowl are not to scale with Junglefowl & Peafowl.

Carl

PLATE 18

1. (132) MOUNTAIN QUAIL *Ophrysia superciliosa* Partridge-: 25 cm. Forehead and prominent supercilium white bordered with black. Coral red bill and legs. Grass and brushwood on steep Himalayan hillsides in the Dehra Dun-Naini Tal region, *c.* 1650-2000 m. Rare; last reported in 1876. Extinct?

2. (121) PAINTED PARTRIDGE *Francolinus pictus* R 31 cm. Black spotted, scalloped and finely barred with white. Dry grass and scrub. N, C. and peninsular India, Sri Lanka (now very rare). Absent in humid tracts of Karnataka and Kerala.

3. (120) BLACK PARTRIDGE *Francolinus francolinus* R 34 cm. Chiefly black. Glistening white cheek patches and chestnut collar of the male diagnostic. Well-watered tracts with tall grass and scrub and wet cultivation. Pakistan and from Himalayan foothills south to N. Gujarat, N. Madhya Pradesh and N. Orissa and North and Northeast Nepal, Bhutan, Bangladesh.

4. (123) SWAMP PARTRIDGE *Francolinus gularis* R Partridge+: 37 cm. Brown crown and nape, buff supercilium. Swampy grass jungle. N. India from the Kumaon terai to NE. India, Sunderbans; Bangladesh.

5. (122) GREY PARTRIDGE *Francolinus pondicerianus* R 33 cm. Stub tailed greyish brown with chestnut blotches and black vermiculations. Chestnut tail. Rufous buff throat. Thorn-scrub, dry light jungle, cultivation environs. Subcontinent; Sri Lanka. Introduced to Andaman Is.

6. (130) RED SPURFOWL *Galloperdix spadicea* R Partridge+: 36 cm. Cock has 2 to 4 pointed spurs, female 1 or 3 on each leg. A naked red patch round eye. Dry- and moist-deciduous scrub, in broken hilly country; up to *c.* 1250 m. From Gujarat, Rajasthan, Uttar Pradesh, Nepal terai and Bihar, south to Andhra Pradesh (E. Ghats), Tamil Nadu, Karnataka and Kerala.

7. (131) PAINTED SPURFOWL *Galloperdix lunulata* R 32 cm. Cock with buff coloured breast with black spots. Dense thorn scrub and bamboo jungle in broken terrain and rocky foothills. India south of the Gangetic plain from *c.* Gwalior in the west and Bengal in the east.

8. (134) GREY JUNGLEFOWL *Gallus sonneratii* R Village hen±: M 60-80 cm; F 46 cm. Cock grey with a sickle-shaped tail. Gold speckled hackles. Female brown with white breast. Dry-deciduous to moist-evergreen biotope: broken country interspersed with cultivation patches. Chiefly W. peninsular India and south of a line Mt Abu-Pachmarhi-mouth of the Godavari.

9. (133) RED JUNGLEFOWL *Gallus gallus* R Village hen±: Male 66 cm; Female 43 cm. Golden brown and black similar to domestic bantam breed. Moist-deciduous forest and scrub jungle interspersed with cultivation. Himalayan foothills; NE. hill states; N. and NC. India; and E. Ghats (Wangasara); Bangladesh.

10. (135) COMMON PEAFOWL *Pavo cristatus* R Village hen+: Male *c.* 92-122 cm without train in full plumage; Female 86 cm. Hen also crested like cock but smaller, mottled brown with some metallic green on lower neck. No train. Moist- and dry-deciduous forest, cultivation and precincts of villages. Subcontinent east of the Indus, up to *c.* 1800 m; Sri Lanka. Introduced in Sind and Andaman Is.

PLATE 19

1. (139) COMMON CRANE *Grus grus* M Vulture±: standing 140 cm. Red naked patch on nape, white band from behind eye along side of neck and black flight feathers diagnostic. Cultivated plains, jheels and sandy river-beds. Pakistan and N. India, east to Bengal, south to Maharashtra and N. Andhra.

2. (140) SARUS CRANE *Grus antigone* R Vulture+: standing 156 cm. Long bare, red legs. Naked red head and upper neck diagnostic. Marshes and cultivation. Pakistan and N. India, south to Mhow (Madhya Pradesh) and Godavari delta; Assam and Manipur.

3. (142) DEMOISELLE CRANE *Anthropoides virgo* M Vulture-: standing 76 cm. A dainty little grey crane with black head and conspicuous white ear tufts behind eye. Winter crops, paddy stubbles, margins of jheels and tanks. Pakistan, N. India to Assam, Bangladesh south to Karnataka and Andhra Pradesh.

4. (141) SIBERIAN or GREAT WHITE CRANE *Grus leucogeranus* M Vulture+: standing 140 cm. Immaculate white crane with naked red face. Black wing quills seen in flight. Can be confused with white stork in flight. Jheels and marshes. N. Pakistan, Rajasthan, Uttar Pradesh. Has strayed to Sind, Bihar, Madhya Pradesh and Maharashtra.

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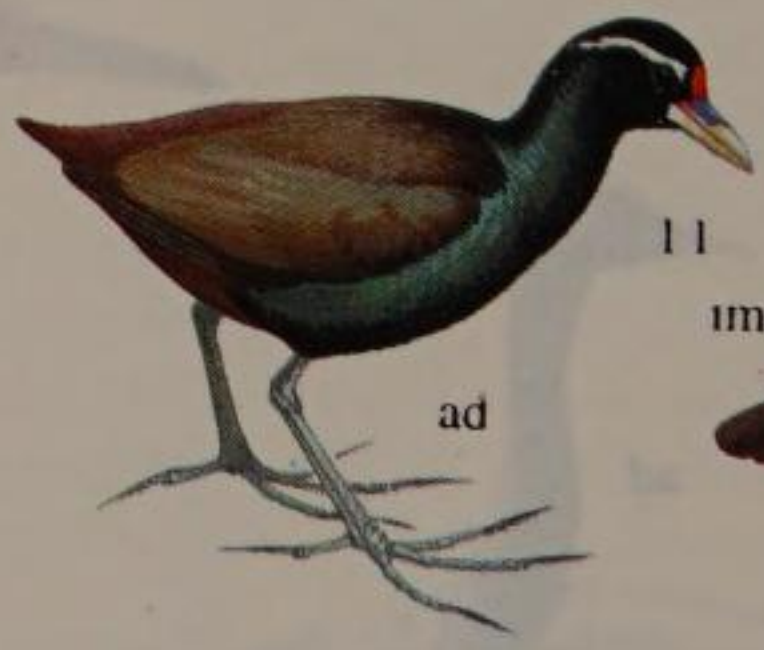
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PLATE 20

1. (143) INDIAN BLUEBREASTED BANDED RAIL *Rallus striatus* R Partridge-: 27 cm. Head and sides of neck chestnut. Foreneck and breast blue. Reedy swamps, mangroves, paddyfields. Subcontinent except Pakistan; Andaman and Nicobar Is; Sri Lanka.

2. (145) LITTLE CRAKE *Porzana parva* M Quail±: 20 cm. Crown and neck dark rufous brown. Below ashy grey barred with white. Swampy reed-beds. Pakistan and W. Peninsular India.

3. (144) SLATY LEGGED BANDED CRAKE *Rallina eurizonoides* RM Quail+: 25 cm. Rufous brown with white chin and throat. Below white barred with black. Dense jungle in well-watered country. Subcontinent. Sri Lanka (winter).

4. (146) BAILLON'S CRAKE *Porzana pusilla* RM Quail±: 19 cm. Small sized rufous olive brown crake streaked and spattered wth narrow white paint like smears. Breast unspotted. Swampy reed-beds, irrigated crops, etc. Subcontinent, Andamans; Sri Lanka.

5. (147) BROWN CRAKE *Amaurornis akool* R Partridge-: 28 cm. A stub tailed brown and ashy crake with chin and throat whitish. Marshes and grassy margins of streams. From Kashmir east to Assam and associated states; Bangladesh; Peninsular India minus extreme south.

6. (148) WHITEBREASTED WATERHEN *Amaurornis phoenicurus* R Partridge±: 32 cm. Slaty grey with prominent white face and breast. Red under tail. Marshes, ponds and ricefields. Subcontinent, Andamans and Nicobars; Sri Lanka; Maldives.

7. (149) KORA or WATER COCK *Gallicrex cinerea* R Partridge+: M 43 cm; F 36 cm. Breeding male black with red fleshy knob on crown and bright red legs and eyes. Marshes, ponds, ricefields, etc. Subcontinent east of the Indus, Andamans and Nicobars, Sri Lanka, Maldives.

8. (150) INDIAN MOORHEN *Gallinula chloropus* RM Partridge+: 32 cm. Slaty grey with prominent white face and breast. Red under tail. Jheels, marshes, ponds, etc. Subcontinent, Andamans; Sri Lanka.

9. (151) PURPLE MOORHEN *Porphyrio porphyrio* R Village hen±: 43 cm. Purplish blue with red legs, forehead and bill. Marshy reed-beds, flooded ricefields, etc. Subcontinent.

10. (152) COOT *Fulica atra* RM Three-quarter grown duck±: 42 cm. Slaty black. The ivory white pointed bill and frontal shield diagnostic. Large jheels, lakes and reservoirs. Subcontinent.

11. (158) BRONZEWINGED JACANA *Metopidius indicus* R Partridge±: Male 28 cm; Female 31 cm. Glossy black head, neck and breast, metallic greenish bronze back and wings, white stripe behind eye to nape. Jheels and ponds with floating vegetation. Subcontinent.

12. (157) PHEASANT-TAILED JACANA *Hydrophasianus chirurgus* R Partridge±: 31 cm (excluding tail). Breeding birds identified by sickle shaped tail. Non-breeding birds with black necklace on upper breast. Jheels and ponds with floating vegetation. Subcontinent; Sri Lanka.

PLATE 21

1. (153) GREAT INDIAN BUSTARD *Choriotis nigriceps* R Vulture+: Male 122 cm; Female 92 cm. Deep buff vermiculated with black above, white below with black breast gorget and conspicuous black crested crown. Whitish patch near tip of wing prominent in flight. Grassland with scrub, and semi-desert. Formerly from the Indus river to Bengal and south to Tamil Nadu; now chiefly Rajasthan, Gujarat, Maharashtra, Madhya Pradesh and the Deccan south to Karnataka, Andhra Pradesh.

2. (154) HOUBARA BUSTARD *Chlamydotis undulata* RM Village hen±: standing *c.* 60 cm; Male 73 cm; Female 66 cm. Sandy buff with black vermiculations. A short black and white crest and ruff on sides of neck. A tuft of greyish plumes from lower throat. Sandy semi-desert. *Breeding:* Baluchistan. *Winter:* the rest of Pakistan, Rajasthan, Kutch and Saurashtra. Straggler to Kashmir, Delhi and Kerala.

3. (156) LESSER FLORICAN *Sypheotides indica* R Village hen±: 46 cm; Female 51 cm. Hen sandy buff mottled and streaked with black. Breeding male with upward curved black plumes from behind eye. Head and neck black. Throat white. Grassland with bushes and cultivation. Pakistan and India, seasonally in Sind, Punjab, Rajasthan, Gujarat, Madhya Pradesh, south to Karnataka, Kerala and Tamil Nadu.

4. (155) BENGAL FLORICAN *Eupodotis bengalensis* R Village hen±: standing 55 cm; Male 66 cm; Female slightly larger. Breeding male with a moppy black crested head, neck and under parts. Elongated plumes overhanging breast. Female and young rufous buff overall. Low lying wet grassland with bushes. Kumaon and Nepal terai, N. Bengal and Bhutan duars, Arunachal Pradesh, Assam, Meghalaya, Bangladesh (Chittagong region).

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PLATE 22

1. (159) OYSTERCATCHER *Haematopus ostralegus* M Partridge+: 42 cm. Black and white with red legs and straight orange red bill. Sandy and rocky seashore. Coastline. Subcontinent.

2. (193) BLACKWINGED STILT *Himantopus himantopus* R Partridge-: 25 cm. Black and white wader with long thin red legs and slender black bill. Seashore and mudflats. Indian Union; Bangladesh; Sri Lanka.

3. (194) AVOCET *Recurvirostra avosetta* RM Partridge+: 46 cm. Black and white bird with slender black upcurved bill. Marshes, lagoons and mudflats, inland and on the sea shore. *Breeding*: N. Baluchistan and Kutch. *Winter*: Subcontinent. Sri Lanka (straggler).

4. (195) CRAB PLOVER *Dromas ardeola* M Partridge+: 41 cm. Piebald bird of the oceanic littoral with heavy tern-like black bill. Mudflats and coral reefs. Coasts of the Subcontinent.

5. (197) GREAT STONE PLOVER *Esacus magnirostris* R Village hen±: 51 cm. Stout black and yellow upturned bill and enormous yellow 'goggle' eyes diagnostic. Rocky river-beds and seacoasts. Subcontinent. Andamans and Nicobars; Sri Lanka.

6. (196) STONE CURLEW *Burhinus oedicnemus* R Partridge+: 41 cm. Ground bird with thick head, long bare 'thick kneed' legs. Large yellow 'goggle eyes'. Call distinctive whistling *pick, pick, pick'* heard at dawn and dusk. Stony semi-desert. Subcontinent.

7. (162) SPURWINGED PLOVER *Vanellus spinosus* R Partridge±: 31 cm. In flight white bar on black tipped wings and contrasting black and white pattern on head diagnostic. Sandbanks and shingle beds of rivers. North east India and N. India west to Haryana; Madhya Pradesh south to the Godavari river. Bangladesh, Bhutan and Nepal.

PLATE 23

1. (199) JERDON'S or DOUBLEBANDED COURSER *Cursorius bitorquatus* Partridge-: 27 cm. Pinkish sandy brown with two white bands on brown breast. Rocky ground with scrub jungle. Formerly the Penner and Godavari valleys in Andhra Pradesh. Last recorded in 1900 and rediscovered in Lankamalai Sanctuary, Cuddapah Dt. (AP) in 1986.

2. (160) WHITETAILED LAPWING *Vanellus leucurus* M Partridge-: 28 cm. Distinguished in flight by white tail and back, and black and white bars on wings. Along jheel edges. Pakistan and N. India east to Bangladesh, south to Gujarat and N Madhya Pradesh. Bombay.

3. (198) INDIAN COURSER *Cursorius coromandelicus* R Partridge-: 26 cm. Rich rufous crown, a black and white stripe through and above eyes. China white legs. Dry stony plains and fallow land. Subcontinent; Sri Lanka.

4. (161) REDWATTLED LAPWING *Vanellus indicus* R Partridge+: 33 cm. A crimson fleshy wattle in front of each eye. Black head, neck and breast, white below. Near water in open country and cultivation. Subcontinent; Sri Lanka.

5. (163) YELLOW-WATTLED LAPWING *Vanellus malabaricus* R Partridge-: 27 cm. Bright yellow fleshy lappets above and in front of eyes. In flight white wing bar on black wings conspicuous. Waste land, stubbles and fallow fields in dry biotope. Subcontinent; Sri Lanka.

6. (165) GOLDEN PLOVER *Pluvialis dominica* M Quail±: 19 cm. Brown above spangled with white and gold. In flight pointed wings without wing bar and fanned out brown tail diagnostic. Muddy shores, ploughed fields and wet grounds. Subcontinent; also Lakshadweep, Andamans and Nicobars; Sri Lanka.

7. (164) BLACKBELLIED or GREY PLOVER *Pluvialis squatarola* M Partridge±: 31 cm. In flight black oval patch under wing, white rump, tail and wing bar conspicuous. Sandy seashores, tidal creeks and mudflats; less commonly inland. Subcontinent.

8. (200) LARGE INDIAN PRATINCOLE or COLLARED SWALLOW PLOVER *Glareola pratincola* RM Myna±: 24 cm. Short legged tern like plover with long, narrow pointed wings extending to tip of forked tail. Flood-plains of rivers, and near jheels. Pakistan, N. India to W. Bengal, Assam; Bangladesh; Sri Lanka. *Winter:* Subcontinent.

9. (201) SMALL PRATINCOLE or SWALLOW PLOVER *Glareola lactea* R Sparrow+: 17 cm. Sandy grey with pointed swallow like wings and squarish slightly forked tail. Large streams, marshes and coastal swamps. Subcontinent east of the Indus river.

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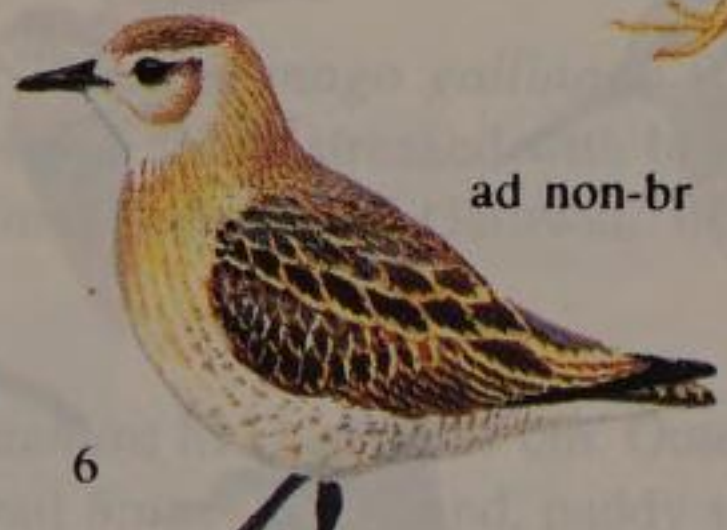

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PLATE 24

1. (170) CURLEW *Numenius arquata* M Village hen±: 58 cm. Long slender, down-curved bill 12 or 15 cm in length diagnostic. Seashore and mudflats. Subcontinent including Lakshadweep, Andamans, Nicobars, Sri Lanka and Maldives.

2. (169) WHIMBREL *Numenius phaeopus* M Village hen±: 43 cm. Smaller than curlew, crown dark with a central white stripe and long white superciliary stripes. Seashore and mudflats. Subcontinent. Lakshadweep, Andamans, Nicobars, Sri Lanka and Maldives.

3. (171) BLACKTAILED GODWIT *Limosa limosa* M Village hen±: male 41 cm; female 50 cm. A brown and white wader with slender, straight, slightly upcurved bill. In flight black band on white tail and white wing edge diagnostic. Marshes. Subcontinent; also Lakshadweep, Andamans, Nicobars, Sri Lanka and Maldives.

4. (172) BARTAILED GODWIT *Limosa lapponica* M Village hen±: male 36 cm; female 41 cm. Similar to black tailed, with shorter legs, no wing bar and black and white tail and protruding legs in flight. Seashore and mudflats. Coast of Pakistan and W. India south to Kerala; also inland (Punjab Salt Range, Bihar); Nicobar Is.

5. (183) JACK SNIPE *Gallinago minima* M Quail±: 21 cm. Smaller than other snipes and lacks their central crown stripe. Marshes. Subcontinent, Andamans, Sri Lanka.

6. (192) PAINTED SNIPE *Rostratula benghalensis* R Quail+: 25 cm. Bill long, slender slightly decurved and snipe-like. Metallic olive green. Eyes with white spectacles. White patch behind eye and white shoulder straps distinctive. Reedy marshes and pools. Subcontinent; Sri Lanka.

7. (182) COMMON or FANTAIL SNIPE *Gallinago gallinago* RM Quail+: 27 cm. Straight, slender, 5 cm long bill. Dark brown above streaked with black, rufous and buff. White below. Marshes. *Breeding:* Kashmir, Ladakh and Garhwal. *Winter:* Subcontinent, Andamans, Sri Lanka, Maldives.

8. (181) PINTAIL SNIPE *Gallinago stenura* M Quail+: 27 cm. Outer tail feathers short and stiff. Difficult to separate from Fantail Snipe. Marshland, paddy stubble, wet grazing and fallow land. Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

9. (184) WOODCOCK *Scolopax rusticola* RM Partridge+: 36 cm. Long bill with swollen tip distinctive. Cryptically coloured in brown, black and white. Dense shady forest and swampy glades. *Breeding:* NWFP and Kashmir to Arunachal Pradesh; *c.* 2000-4000 m. *Winter:* Nepal, Assam and S. Indian hills. Andamans (an isolated record).

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PLATE 25

1. (174) REDSHANK *Tringa totanus* RM Partridge-: 28 cm. In flight white lower back and rump, broad white semicircular band along hind border of wing and long slender red legs distinctive. Marshes, margins of lakes, river banks and estuaries. *Breeding:* Kashmir and Ladakh. *Winter:* Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

2. (173) SPOTTED or DUSKY REDSHANK *Tringa erythropus* M Partridge±: 33 cm. Distinguished from the Redshank by the barred brown and white secondaries, white back and rump, barred tail coverts and long orange red legs. Marshes, reservoirs, estuaries. Subcontinent, Sri Lanka.

3. (175) MARSH SANDPIPER *Tringa stagnatilis* M Partridge-: 25 cm. In winter forehead, supercilium, sides of head, lower back and rump white, otherwise greyish brown above, white below. No wing bar, legs slender, green. Marshes, margins of ponds, inundated fields and mudflats. Subcontinent, Sri Lanka.

4. (176) GREENSHANK *Tringa nebularia* M Partridge+: 36 cm. Legs olive green, bill slightly upturned. No wing bar. Forehead, lower back, rump and faintly barred tail white. Marshes, margins of ponds, lagoons and mudflats. Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

5. (177) WOOD or SPOTTED SANDPIPER *Tringa glareola* M Quail±: 21 cm. Sepia brown above. Lower back and rump white. White stripe above eye from bill to nape. White rump, and barred brown and white tail diagnostic in flight. Marshes, flooded paddyfields, mudflats. Subcontinent, Andamans, Sri Lanka, Maldives.

6. (179) COMMON SANDPIPER *Tringa hypoleucos* RM Quail±: 21 cm. Greyish olive brown above, white below with dusky breast. In flight brown rump and tail except white outer feathers distinctive. Gravel bars in rivers; reservoirs, lagoons and seashore. *Winter:* Subcontinent, Lakshadweep, Andamans, Nicobars, Sri Lanka, Maldives.

7. (178) TEREK SANDPIPER or AVOCET SANDPIPER *Tringa terek* M Quail+: 24 cm. Long slender upcurved bill and short orange yellow legs, pale ashy brown rump and white trailing edge of dark wings conspicuous. Seashore, mudflats and lagoons. Seaboard of Subcontinent. Rarely inland, Kashmir, Nepal, Rajasthan and Delhi.

8. (180) TURNSTONE *Arenaria interpres* M Quail±: 22 cm. Distinguished by the immaculate white chin and throat, straight black bill and orange red legs. Rocky seashore. Coasts of Subcontinent, Andamans, Nicobars, Lakshadweep, Sri Lanka, Maldives.

PLATE 26

1. (166) LITTLE RINGED PLOVER *Charadrius dubius* RM Quail-: 17 cm. Typical plover with thick head, yellow legs, short bill Black band around neck separates white neck collar from back. No wing bar. Shingle beds in rivers, seashore and mudflats. Subcontinent, Andamans; Sri Lanka; Maldives.

2. (167) KENTISH PLOVER *Charadrius alexandrinus* RM Quail-: 17 cm. Black legs, narrow eye stripe, white supercilium and forehead, small dark patch on breast, and white wing bar distinctive. Sandy shores. Subcontinent. Sri Lanka. *Winter:* Lakshadweep, Nicobars.

3. (168) LESSER SAND PLOVER *Charadrius mongolus* RM Quail±: 19 cm. Greenish grey legs, short black bill, white collar, hind neck, upper breast and flanks. Stony or sandy plains near lakes, bogs and streams above *c.* 3400 m. Ladakh, Lahul, Sikkim. *Winter:* Seashore and mudflats. Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

4. (186) LITTLE STINT *Calidris minuta* M sparrow-: 15 cm. A mottled grey brown diminutive wader. White below. Legs blackish. Shores, mudflats and marshes. Subcontinent: Lakshadweep, Sri Lanka, Maldives.

5. (189) CURLEW-SANDPIPER *Calidris testacea* M Quail±: 20 cm. Separated from the Dunlin by larger size, longer legs, more slender bill and in flight by the white upper tail coverts. Seashore, mudflats and marshes. Subcontinent, Andamans, Nicobars, Sri Lanka, Maldives.

6. (187) TEMMINCK'S STINT *Calidris temminckii* M Sparrow±: 15 cm. Distinguished from little stint by the pure white outer tail feathers and olive green legs. Coastal lagoons, tidal mudflats and inland marshes. Subcontinent: Lakshadweep, Andamans, Maldives.

7. (188) DUNLIN *Calidris alpina* M Quail±: 19 cm. Likely to be confused with the Curlew Sandpiper but distinguished in flight by the blackish upper tail coverts. Seashore, mudflats and riverbanks. Pakistan and NW. India, on large rivers of the Gangetic system, south to the E. & W. coasts of the Peninsula; Maldives.

8. (185) SANDERLING *Calidris alba* M Quail±: 19 cm. Separated from similar shore birds by slender straight bill, overall pale colour and black shoulder patch. In flight white wing bar conspicuous. Sandy shores. Coasts of the Subcontinent, Car Nicobar.

9. (190) BROADBILLED SANDPIPER *Limicola falcinellus* M Quail-: 17 cm. Distinguished by the prominent white supercilium and black wing shoulder patch from the Dunlin and Curlew Sandpiper. Seashore, mudflats and river banks. Subcontinent, Andamans, Nicobars and Sri Lanka.

10. (191) RUFF AND REEVE *Philomachus pugnax* M. Male - Partridge±: 31 cm; Female - Quail+: 25 cm. Plumage bold scaly patterned. Bill short. Narrow white wing band and white patches at base of tail diagnostic in flight. Mudflats, marshes and wet paddy stubbles. Subcontinent. Sri Lanka, Maldives. Lakshadweep, Andamans, Nicobars.

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PLATE 27

1. (203) LESSER BLACKBACKED GULL *Larus fuscus* M Duck±: 60 cm. Head, neck, underparts white, mantle grey, legs yellow. In flight white trailing edge of wings and white tip of black primaries conspicuous. Sea coast. Pakistan and India. Nepal (once); Sri Lanka.

2. (202) HERRING GULL *Larus argentatus* M Duck±: 60 cm. Yellow legs. A bright red patch near tip of lower bill. White mirror on black wing quills. Sea coast and inland lakes. Coasts of Pakistan and India; the Ganges river. One record each from Nepal and Calcutta. Chitral (passage).

3. (205) BROWNHEADED GULL *Larus brunnicephalus* RM Crow+: 46 cm. Distinguished from the Blackheaded gull by the prominent white patch or mirror near the tip of the all black first primary. Sea coast, lagoons, backwaters, estuaries and large rivers. *Breeding:* Ladakh. *Winter*: Subcontinent. Sri Lanka.

4. (204) GREAT BLACKHEADED GULL *Larus ichthyaetus* M Duck+: 66-72 cm. Bill yellow with bright red patch at angle. Primaries white with subterminal black bands and white tips. Tail with broad blackish terminal band. Sea coast and large rivers and lakes of the subcontinent; Sri Lanka.

5. (206) BLACKHEADED GULL *Larus ridibundus* M Crow±: 43 cm. Smaller in size than the brownheaded gull and the wing with the leading edge pure white and without mirror. Sea coast, estuaries, etc. Subcontinent; Nepal; Sri Lanka; Maldives (Vagrant).

6. (215) INDIAN SKIMMER *Rynchops albicollis* R Crow±: 40 cm. The pied plumage, peculiar laterally flattened knife-blade like orange yellow bill and bright red legs distinctive. The Indus, Ganges and Brahmaputra river systems, Nepal terai and the large rivers of E. and Peninsular India. Vagrant elsewhere.

PLATE 28

1. (207) INDIAN WHISKERED TERN *Chlidonias hybrida* RM Pigeon-: 25 cm. Tail slightly forked, almost square-cut. Bill red. At rest tips of wings project beyond tail. Lakes, marshes, coastal lagoons and mudflats. *Breeding:* Kashmir, N. India in the Gangetic plain, Assam and Bangladesh. *Winter:* Subcontinent and Sri Lanka.

2. (208) GULLBILLED TERN *Gelochelidon nilotica* RM Crow-: 38 cm. Bill stout, gull-like, black. Legs black. Jheels, rivers, and coastal mudflats. *Breeding:* Pakistan, W Bengal and Bangladesh. *Winter:* Subcontinent, Andamans (once); Sri Lanka; Maldives.

3. (209) CASPIAN TERN *Hydroprogne caspia* RM Crow+: 51 cm. Our largest tern distinguished by its coral red bill and black legs and feet. Sea coast and large lakes. *Breeding:* Baluchistan and Sri Lanka. *Winter:* Subcontinent.

4. (211) COMMON TERN *Sterna hirundo* RM Crow-: 36 cm. Tail not projecting beyond wing tip at rest. The largely black first primary and blackish bill with red base are diagnostic. Large rivers and estuaries. *Breeding:* Ladakh, Sri Lanka. *Winter:* Subcontinent; Maldives.

5. (210) RIVER TERN *Sterna aurantia* R Crow±: 38-46 cm. Tail deeply forked. Bill deep yellow, legs short, red. Large rivers and reservoirs. Subcontinent; absent in Sri Lanka.

6. (213) LITTLE TERN *Sterna albifrons* R Myna±: 23 cm. Distinguished by small size. Head black capped, bill black, legs dusky red in winter. In summer, head black mixed with white, bill and legs orange yellow. Rivers, marshes and estuaries. Pakistan, Gujarat, coast of Maharashtra, large rivers of N. India, Nepal, Bangladesh and Sri Lanka.

7. (212) BLACKBELLIED TERN *Sterna acuticauda* R Crow-: 33 cm. Tail deeply forked. In summer ashy grey above, black below. In winter greyish white below. Rivers. Subcontinent east of the Indus; absent in Sri Lanka.

8. (214) LARGE CRESTED TERN *Sterna bergii* R Kite-: 53 cm. Black crown and nuchal crest with white band on forehead. Bill lemon yellow, legs black. Pelagic. *Breeding:* Islets off the coasts of Pakistan, Peninsular India, W. Bengal, Bangladesh and Sri Lanka; Lakshadweep and probably Maldives. Post-breeding dispersal: entire seaboard.

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PLATE 29

1. (217) IMPERIAL or BLACKBELLIED SANDGROUSE *Pterocles orientalis* R Pigeon+: 39 cm. Black breast and abdomen. Distinguished in flight by large size, black belly and white underside of wings. Sandy semi-desert. Pakistan and NW. India; vagrant to Nepal, Uttar Pradesh, Madhya Pradesh and Karnataka. *Breeding:* Baluchistan and Sind.

2. (216) INDIAN SANDGROUSE *Pterocles exustus* R Pigeon±: 28 cm. Pin-tailed pigeon- like ground bird with a narrow black band across the breast. Stony semi-desert and dry fallow land, Pakistan, and India east to Bengal, south to Tamil Nadu.

3. (218) PAINTED SANDGROUSE *Pterocles indicus* R Pigeon-: 28 cm. No pin feathers in tail. Close barred plumage. Chestnut, buff and black gorget on breast in male. Female finely barred with chocolate, black and buff. Bare, stony plateau country. Pakistan east of the Indus, and India east to Bihar and Orissa, south to Karnataka and Tamil Nadu.

4. (219) PINTAILED GREEN PIGEON *Treron apicauda* R Pigeon+: Male 42 cm including tail of *c.* 21 cm; Female tail shorter *c.* 18 cm. Yellowish green with a long pin pointed tail and two distinct yellow bars on the black wings. Tall forest. Lower Himalayas from Kumaon to Bhutan and Arunachal Pradesh; up to *c.* 1800 m.

5. (220) KOKLA or WEDGETAILED GREEN PIGEON *Treron sphenura* R Pigeon±: 33 cm. Tail wedge shaped. Breast orange pink. Broad-leaved forest. Lower Himalayas from Kashmir to Bhutan and Arunachal Pradesh, and hills south of the Brahmaputra; up to *c.* 2500 m.

6. (222) ORANGEBREASTED GREEN PIGEON *Treron bicincta* R Pigeon-: 29 cm. Orange breast bounded by a lilac band in the male. Cinnamon under tail coverts. Tail slate grey with black subterminal band except on central pair. Evergreen and moist-deciduous forest. Lower Himalayas, Manipur, W. Bengal and Bangladesh; E. Ghats, and W. Ghats from Belgaum southwards, Tamil Nadu (Pt. Calimere), Sri Lanka.

7. (221) GREYFRONTED GREEN PIGEON *Treron pompadora* R Pigeon -; 28 cm. Very like common green pigeon but with *red legs*. Evergreen and moist-deciduous forests. Nepal, E. Himalayas, NE. hill states, Bangladesh, W. Ghats. Sri Lanka; Andamans and Nicobars.

8. (223) COMMON GREEN PIGEON *Treron phoenicoptera* R Pigeon±: 33 cm. Lilac patch on shoulder. *Yellow legs* diagnostic. Dry- and moist-deciduous biotope. Pakistan (Punjab) and from Himalayan foothills south through the Peninsula; Bangladesh; Sri Lanka.

9. (224) GREEN IMPERIAL PIGEON *Ducula aenea* R Crow+: 43 cm. Pinkish grey with metallic bronze green back and tail. Chestnut maroon undertail. Evergreen and moist-deciduous forest. Subcontinent; Andamans, Nicobars, Bangladesh; Sri Lanka.

10. (225) MAROONBACKED IMPERIAL PIGEON *Ducula badia* R Crow+: 51 cm. Copper brown above with grey head, neck and underparts. Tall evergreen forest. E. Himalayas; NE. hill states, up to *c.* 2300 m; W. Ghats complex.

PLATE 30

1. (226) BLUE ROCK PIGEON *Columba livia* R Pigeon+: 33 cm. A familiar slaty grey bird with metallic sheen of green, purple and magenta. Two dark bars on wings. Cliffs and gorges, and around habitations and cultivation. Subcontinent, Nicobars (introduced); Sri Lanka.

2. (227) NILGIRI WOOD PIGEON *Columba elphinstonii* R Pigeon+: 42 cm. Reddish brown, with grey head and distinctive 'chessboard' on hind neck. Moist-evergreen forest and sholas. W. Ghats and associated hills from Bombay south through Kerala.

3. (229) BARTAILED CUCKOO-DOVE *Macropygia unchall* R Pigeon+: 41 cm. Cuckoo-like long tailed dove, rufous barred with black above. Tail graduated, barred. Dense evergreen forest and secondary jungle. Himalayas from Kashmir to Arunachal, and south through NE. hill states to Manipur.

4. (228) PURPLE WOOD PIGEON *Columba punicea* R Pigeon+: 36 cm. Crown and nape grey otherwise rich chestnut brown with glistening metallic sheen. Tail black. Well-wooded ravines with dense evergreen undergrowth. Bihar, E. Madhya Pradesh and Orissa east to Assam, Nagaland, Manipur and Bangladesh (Chittagong region).

5. (231) RING DOVE *Streptopelia decaocto* R Pigeon±: 32 cm. Vinous grey and brown pigeon with narrow black ring on hind neck. Dry-deciduous plains country with light jungle and cultivation. Subcontinent; Sri Lanka.

6. (230) RUFOUS TURTLE DOVE *Streptopelia orientalis* RM Pigeon±: 33 cm. Large reddish brown dove. Scaly pattern above and black and white 'chess board' on sides of neck. Moist-deciduous biotope, mixed forest and bamboo jungle. Subcontinent, to *c.* 4000 m in the Himalayas.

7. (232) RED TURTLE DOVE *Streptopelia tranquebarica* R Myna±: 23 cm. Mantle bright pinkish brick red in male, pale brownish grey in female. Deciduous scrub jungle and cultivation. Subcontinent; normally under 800 m in the Himalayas. Andamans; Sri Lanka.

8. (233) SPOTTED DOVE *Streptopelia chinensis* R Pigeon-: 30 cm. White spotted pinkish brown and grey above. White and black 'chessboard' on hind neck. Dry- and moist-deciduous biotope — better wooded moister facies than Ring or Little Brown. Subcontinent; Bangladesh; Sri Lanka.

9. (234) LITTLE BROWN DOVE *Streptopelia senegalensis* R Myna+: 27 cm. Earthy brown and grey above. Pinkish brown and white below. On either side of neck a miniature rufous and black 'chessboard'. Dry deciduous biotope. Subcontinent east to Nepal, Bangladesh and Tripura; not recorded in Sri Lanka.

10. (235) EMERALD or BRONZEWINGED DOVE *Chalcophaps indica* R Myna+: 27 cm. Brownish pink dove bronze green above. Conspicuous white forehead and eyebrows. Chestnut underside of wings diagnostic in flight. Dry deciduous jungle. Subcontinent; Sri Lanka; Andaman and Nicobar Is.

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Plate 31

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PLATE 31

1. (237) ROSERINGED PARAKEET *Psittacula krameri* R Myna+: overall 42 cm. Lacks maroon shoulder patches of the Alexandrine parakeet. Female without rose pink collar. Moist- and dry-deciduous biotope, thin jungle, orchards, cultivation and human environments. Subcontinent; Bangladesh; Sri Lanka.

2. (236) ALEXANDRINE or LARGE INDIAN PARAKEET *Psittacula eupatria* R Pigeon+: 53 cm. Conspicuous maroon patch on each shoulder. Female without the males rose pink and black collar. Dry- and moist-deciduous biotope. Subcontinent, Andamans, Nicobars; Bangladesh; Sri Lanka.

3. (238) INDIAN REDBREASTED PARAKEET *Psittacula alexandri* R Pigeon+: overall 38 cm. Greyish pink head, plum red throat and breast and conspicuous yellow shoulder patch. Bill red in male, black in female. Moist-deciduous biotope, thin secondary jungle. Lower Himalayas from Kumaon east to Arunachal Pradesh up to *c.* 1500 m, NE. hill states; Andaman Is.; Bangladesh.

4. (240) HIMALAYAN SLATYHEADED PARAKEET *Psittacula himalayana* R Myna+: overall 41 cm. Head dark bluish slaty, black ring round neck followed by a green collar. Red shoulder patch in male absent in female. Tail steeply graduated and feathers yellow tipped. Well-wooded hillsides and valleys. Himalayas, seasonally between *c.* 600 and 2500 m.

5. (239) BLOSSOMHEADED PARAKEET *Psittacula cyanocephala* R Myna-: overall 36 cm. Distinguished by bluish red head and maroon shoulder patches. Female has bright yellow collar and lacks maroon patches. White tips to the two central tail feathers diagnostic in flight. Lowlands and hills to *c.* 1500 m. Lower Himalayas of Pakistan east to Bhutan, south throughout the Peninsula; Sri Lanka.

6. (241) BLUEWINGED PARAKEET *Psittacula columboides* R Myna±: overall 38 cm. Brilliant blue green and black collar. Blue wings and tail, the latter tipped yellow is conspicuous. Female without verditer collar. Evergreen and moist-deciduous biotope. W. Ghats from the Thana district (*c.* 19°N lat.) south through Kerala and associated hills of Karnataka and Tamil Nadu; *c.* 500-1000 m.

7. (242) LORIKEET *Loriculus vernalis* R Sparrow±: 14 cm. Tail short and square. Rump rich crimson. A blue throat patch in male. Evergreen and moist-deciduous forest. E. Himalayan foothills; NE. hill states; the Indian peninsula in E. Ghats, and W. Ghats from (*c.* 18°N), south through Karnataka, Kerala and Tamil Nadu; Andaman and Nicobar Is.

PLATE 32

1. (247) CUCKOO *Cuculus canorus* RM Pigeon±: 33 cm. Ash grey above, paler on chin, neck, breast, white below barred with black. Tail blackish brown, spotted and tipped with white. Female has rufous tinge and is occasionally hepatic. *Summer:* Himalayas; NE. hill states; Bangladesh. Seasonally most hilly regions of the Subcontinent. Andamans; Nicobars; Sri Lanka (winter).

2. (246) INDIAN CUCKOO *Cuculus micropterus* RM Pigeon±: 33 cm. Slaty grey above, pale ash and white below, barred with black. Black subterminal tail band diagnostic. Deciduous and evergreen biotope. Subcontinent, Andamans, Nicobars; Sri Lanka.

3. (245) COMMON HAWK-CUCKOO or BRAINFEVER BIRD *Cuculus varius* R Pigeon±: 34 cm. Ash grey above, whitish below, cross-barred with brown. Barred tail. Deciduous and semi-evergreen forest, groves and gardens. Subcontinent; Sri Lanka.

4. (249) PLAINTIVE CUCKOO *Cacomantis passerinus* R Myna±: 23 cm. Dark grey above, white below. White tipped black tail and white patch on underside of wings prominent in flight. Open forest, well-wooded country and cultivation. Subcontinent; Sri Lanka. Absent in Pakistan and drier parts of NW. India.

5. (248) INDIAN BAY BANDED CUCKOO *Cacomantis sonneratii* R Myna±: 24 cm. Bright rufous conspicuously barred with brown above. Whitish below with wavy cross bars. Tail rufous tipped with white, subtipped black. Deciduous and evergreen wooded country. Subcontinent; up to *c.* 2400 m in Himalayas; Sri Lanka.

6. (244) PIED CRESTED CUCKOO *Clamator jacobinus* RM Myna±: 33 cm. Crested, black and white bird. White tips to tail and white patch on wing conspicuous in flight. Dry- and moist-deciduous lightly wooded country. Seasonally entire Subcontinent; Sri Lanka.

7. (243) REDWINGED CRESTED CUCKOO *Clamator coromandus* R Crow+: 47 cm. Metallic glossy black with a crest. White half collar on hind neck and chestnut wings. Evergreen and moist-deciduous biotope: foothills forest and scrub jungle. Himalayas from Garhwal east to Bhutan and Arunachal Pradesh; NE. hill states; Bangladesh. *Winter:* S. India (rare); Sri Lanka.

Plate 32

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PLATE 33

1. (250) INDIAN DRONGO CUCKOO *Surniculus lugubris* R Myna+ with longer, forked tail; 25 cm. Resembles Drongo. Distinguished by white under tail coverts and white barring near base of outermost tail feathers. Well-wooded country and orchards. Himalayas; NE. hill states; Bangladesh; N. and peninsular India; Sri Lanka.

2. (251) KOEL *Eudynamys scolopacea* R Crow+; 43 cm. Male glistening black with yellowish green bill and crimson eyes. Female brown spotted and barred with white. Lightly wooded country and cultivation. Subcontinent.

3. (252) LARGE GREENBILLED MALKOHA *Rhopodytes tristis* R Pigeon± with tail *c.* 38 cm; overall length *c.* 51 cm. Long graduated white tipped tail, crimson eye patch and yellowish green bill diagnostic. Dense shrubbery and thickets in evergreen and moist-deciduous biotopes. Lower Himalayas from Garhwal to Arunachal Pradesh; NE. hill states; Bihar, E. Madhya Pradesh, E. Ghats and N. Orissa; up to *c.* 1800 m. Bangladesh.

4. (253) SMALL GREENBILLED MALKOHA *Rhopodytes viridirostris* R Crow-: 39 cm. Bright green bill, naked blue patch around eye and white tipped long graduated tail diagnostic. Deciduous and semi-evergreen scrub and secondary jungle. Peninsular India from Gujarat, Maharashtra and Orissa south to Kanyakumari; Rameshwaram I.; Sri Lanka.

5. (254) SIRKEER CUCKOO *Taccocua leschenaultii* R Crow±: 42-44 cm. Earthy brown and rufous with black feather shaft streaks. Cross rayed tail feathers and bright cherry red and yellow, hooked, beak diagnostic. Dry-deciduous secondary forest and scrub-and-bush jungle, etc. Subcontinent; Sri Lanka.

6. (256) LESSER COUCAL *Centropus toulou* R Crow-: 33 cm. Smaller version of Common Crow Pheasant. Tail feathers tipped white. Scrub jungle and tall grassland. Himalayan submontane terai; Uttar Pradesh to Nepal; E. India; Orissa; Bangladesh; also SW. India from N. Kanara to Kerala.

7. (255) CROW-PHEASANT or COUCAL *Centropus sinensis* R Crow+: 48 cm. Glossy black bird with conspicuous chestnut wings and long black graduated tail. Deciduous scrub jungle and gardens. Subcontinent; Bangladesh; Sri Lanka.

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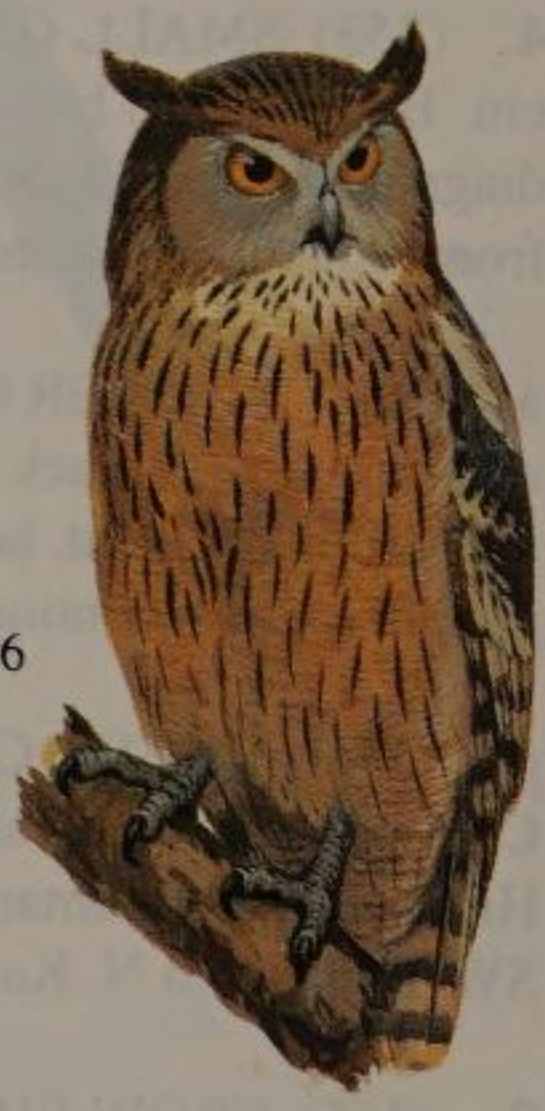

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PLATE 34

1. (257) BARN or SCREECH OWL *Tyto alba* R Crow-: 36 cm. Golden buff and grey stippled with black. Large round head with conspicuous ruff of stiff feathers surrounding a pinched facial disc. Buildings and ruins. Subcontinent; Andaman Is. Sri Lanka.

2. (258) GRASS OWL *Tyto capensis* R Crow-; 36 cm. Similar to Barn Owl. Prominent black spot in front of each eye. Tall grass jungle and grassy depressions. Himalayan submontane tracts: Uttar Pradesh east to Assam and south through Orissa and Madhya Pradesh; to S. Indian hills; up to *c.* 1800 m.; Bangladesh.

3. (261) INDIAN GREAT HORNED OWL *Bubo bubo* R Kite-: 56 cm. Similar to Fish Owl but legs fully feathered. Eyes orange yellow. Rocky hills with outscoured steep-sided ravines, and well-wooded country. Subcontinent.

4. (262) FOREST EAGLE-OWL *Bubo nipalensis* R Kite±: 63 cm. Two erect black and white 'horns' or ear tufts. Legs fully feathered. Eyes brown. Dense evergreen and moist-deciduous forest up to *c.* 2100 m. Himalayan submontane tracts from Kumaon to Arunachal Pradesh; NE. hill states; the hills of W. Ghats complex in S. India, east to the Shevaroy Hills; Bangladesh; Sri Lanka.

5. (263) DUSKY HORNED OWL *Bubo coromandus* R Kite±: 58 cm. Similar to (261) but more grey with paler yellow eyes. Horns stand erect close to each other. Wooded, well-watered country with groves of large leafy trees. Most of the Subcontinent south of the Himalayas.

6. (264) BROWN FISH OWL *Bubo zeylonensis* R Kite-: 56 cm. Large brown owl, paler underparts with vertical streaks. Feather tufts above head. Legs bare. Well-wooded and well-watered country with groves of large leafy trees. Most of the Subcontinent south of Himalayas.

7. (269) BROWN WOOD OWL *Strix leptogrammica* R Kite-: 47-53 cm. Chocolate brown owl with close barred underparts, white supercilium. Face white in the Himalayan race, rufous in the peninsular race. White patch on throat. Tail tipped white. Dense semi-evergreen and moist-deciduous forest. Himalayas from Pakistan (Punjab) east to Arunachal Pradesh (750-2450) m); NE. hill states; rest of the Subcontinent; Sri Lanka.

8. (268) MOTTLED WOOD OWL *Strix ocellata* R Kite±: 48 cm. Medium sized reddish brown owl with white face disc concentrically barred in black. A white half collar on foreneck. Wooded plains country: groves of densely foliaged ancient trees in village environs, etc. Pakistan and most of peninsular India.

PLATE 35

1. (271) BAY OWL *Phodilus badius* R Pigeon-; 29 cm. A small dainty chestnut bay or chocolate brown owl with short ear-like tufts. Forehead and facial disc vinous pink surrounded by white ruff. Patch of chestnut feathers round eye a striking feature. Heavy evergreen forests in submontane tracts and foothills up to 1500 m. Nepal to NE. India. Western Ghats (Kerala). Sri Lanka. Rare.

2. (259) SCOPS OWL *Otus scops* RM Myna-: 19 cm. Small greyish brown vermiculated owl with ear tufts and feathered legs. Evergreen and deciduous forest. Subcontinent, Andamans, Nicobars; Sri Lanka.

3. (260) COLLARED SCOPS OWL *Otus bakkamoena* R Myna±:: 23-25 cm. A little 'horned' owl, grey brown or rufous brown. A pale half collar on upper back. Well-wooded country. Subcontinent; Sri Lanka.

4. (265) BARRED JUNGLE OWLET *Glaucidium radiatum* R Myna±: 20 cm. Dark brown conspicuously barred with pale rufous. Below barred with blackish brown. Moist-deciduous forest and mixed secondary jungle. Subcontinent; Sri Lanka.

5. (266) BROWN HAWK-OWL *Ninox scutulata* R Pigeon±: 32 cm. Hawk-like in appearance and movements. Dark greyish brown above, white barred with reddish brown below. Well-wooded country. Most of the Subcontinent; Sri Lanka. Not in Pakistan.

6. (267) SPOTTED OWLET *Athene brama* R Myna±: 21 cm. Squat white spotted greyish brown owl with large round head and staring yellow eyes. Ruins, mango topes and village groves of ancient trees, etc. Subcontinent. Absent in Sri Lanka and Andaman and Nicobar Is.

7. (270) SHORTEARED OWL *Asio flammeus* M Pigeon+: 38 cm. A slim owl with two upstanding ear tufts above brown eyes. Facial disc white mixed with black, surrounded by dark brown ruff. Open undulating grasslands, scrub and marshes; plains and hills up to *c.* 1400 m. Subcontinent. Occasional in Sri Lanka and Maldives.

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PLATE 36

1. (276) INDIAN EDIBLE-NEST SWIFTLET *Collocalia unicolor* R Sparrow-: 12 cm. Slender brown swift with a slightly forked tail. Bat-like fluttering flight. Caves in rocky off-shore islets and cliffs. SW. India from S. Konkan south through Karnataka, Kerala and Tamil Nadu. Andamans.

2. (280) CRESTED TREE SWIFT *Hemiprocne longipennis* R Bulbul+; 23 cm. Blue grey above, whitish below. Prominent erectile crest on forehead. Chin and throat chestnut in male, grey in female. Well-wooded country. Subcontinent excepting Pakistan; Sri Lanka.

3. (278) HOUSE SWIFT *Apus affinis* RM Sparrow±: 15 cm. Smoky black with white throat and rump. Short square tail and long narrow wings. Gregarious. Around buildings and cliffs. From NWFP east through Punjab, Kashmir and Uttar Pradesh to Assam and Bangladesh; south throughout the Peninsula. Sri Lanka.

4. (279) PALM SWIFT *Cypsiurus parvus* R Sparrow-: 13 cm. Sooty grey swift with deeply forked tail and long slender bow-like wings. Associated with palms, especially *Borassus*. India, Nepal, Bhutan, and Bangladesh to Myanmar; Sri Lanka.

5. (277) ALPINE SWIFT *Apus melba* RM Bulbul+: 22 cm. Dark brown above, white below, brown band across breast diagnostic. High cliffs. N. Baluchistan; Himalayas; W. Ghats from Nasik to Kerala; Madhya Pradesh; Sri Lanka.

6. (275) FRANKLIN'S or ALLIED NIGHTJAR *Caprimulgus affinis* R Myna+: 25 cm. Outer tail feathers white except tip in male. Mottled in female. Conspicuous buff coloured V from shoulders to half way down back. Spot on first four primaries white in male, buff in female. Scrubby hillsides, light deciduous forest and grass jungle. Subcontinent from the Punjab Salt Range, eastwards.

7. (272) JUNGLE NIGHTJAR *Caprimulgus indicus* RM Pigeon-: 29 cm. Male with white spots on four outer pairs of tail feathers. No white spot on primaries. General colour brown and buff with black spots and streaks. Dry- and moist-deciduous jungle. Subcontinent and Sri Lanka.

8. (274) COMMON INDIAN NIGHTJAR *Caprimulgus asiaticus* R Myna±: 24 cm. Mottled grey brown, buff and fulvous. White patches on wings conspicuous in flight. Dry-deciduous scrub-jungle. Subcontinent east of the Indus valley; Sri Lanka.

9. (273) LONGTAILED NIGHTJAR *Caprimulgus macrurus* RM Pigeon-: 28 cm. A white spot on first four primaries. Two outer tail feathers broadly tipped white. Moist-deciduous biotope: mixed bamboo and secondary scrub forest. Himalayan foothills (up to *c.* 2400 m) and practically the entire Subcontinent; Sri Lanka; Andaman Is.

PLATE 37

1. (281) SOUTHERN TROGON *Harpactes fasciatus* R Myna± with longer tail: overall 31 cm. Brilliantly coloured forest bird with long curiously truncated graduated tail. Sexes dissimilar. Moist-deciduous and evergreen forest. From S. Gujarat and Khandesh east to Madhya Pradesh and Orissa, and south through the Peninsula in E. and W. Ghat complexes; Sri Lanka.

2. (282) REDHEADED TROGON *Harpactes erythrocephalus* R Myna+ with longer tail: overall 35 cm. Male has head, neck and breast deep crimson. In female dull orange brown. Evergreen forest. Himalayas (foothills up to *c.* 2400 m) from Kumaon to Arunachal Pradesh; NE. hill states; Bangladesh eastwards to Myanmar.

3. (283) PIED KINGFISHER *Ceryle rudis* R Myna+: 31 cm. Speckled and barred black and white. Male with unbroken black gorgets. Female with a single broken gorget. Stagnant water, jheels, reservoirs, ditches and slow-flowing streams. Subcontinent; Sri Lanka.

4. (284) SMALL BLUE KINGFISHER *Alcedo atthis* RM Sparrow+: 18 cm. Blue green above, rust below, white neck patches. Along streams, canals, ponds, mangrove swamps and seashore. Subcontinent; Sri Lanka.

5. (285) BLUE-EARED KINGFISHER *Alcedo meninting* R Sparrow±: 16 cm. Deep purplish blue above. Blue ear coverts. Small streams in evergreen or bamboo forest. E. Himalayan foothills; E. India (Bihar, Orissa); W. Ghats complex south of Belgaum; Andaman Is; Sri Lanka.

6. (286) THREETOED KINGFISHER *Ceyx erithacus* R Sparrow-: 13 cm. Dark purple blue or lilac mantle. Orange yellow below. Coral red bill and three toed legs. Shady streams in moist-deciduous and evergreen biotope. Nepal and E. India; W .Ghats complex; Andaman and Nicobar Is; Sri Lanka.

7. (287) BROWNHEADED STORKBILLED KINGFISHER *Pelargopsis capensis* R Pigeon+: 38 cm. Large size and enormous, compressed blood red bill diagnostic. Well-wooded country near streams and irrigation channels. N. and peninsular India east of Dehra Dun and south of Himalayan foothills to Kerala; Sri Lanka; Andaman and Nicobar Is.

8. (288) RUDDY KINGFISHER *Halcyon coromanda* R Myna+: 26 cm. Cinnamon coloured. White rump conspicuous in flight. Bill and feet bright red. Dense evergreen jungle at streams and pools, and mangrove swamps. The terai and duars from Nepal eastwards; W Bengal; Bangladesh; Andaman Is.

9. (289) WHITEBREASTED KINGFISHER *Halcyon smyrnensis* R Myna+: 28 cm. A conspicuous white shirt front and white wing patch in flight diagnostic. Canals, streams, reservoirs, cultivation, gardens and edges of forest often away from water. Subcontinent, Andamans, Nicobars; Sri Lanka.

10. (290) BLACKCAPPED KINGFISHER *Halcyon pileata* R Myna+: 30 cm. A black cap separated from the back by a white collar and the red bill are diagnostic. Along seashore, mangrove swamps, creeks and estuaries. Coastal Bangladesh and round the peninsular seaboard west to Bombay; Andaman and Nicobar Is.; Sri Lanka. Once in Madhya Pradesh (Kanha, March).

11. (291) WHITECOLLARED KINGFISHER *Halcyon chloris* R Myna±: 24 cm. Greenish blue above. White collar merging into white underparts. Bill black. Mangrove swamps. Coastal Maharashtra and possibly further south; coast of Orissa, W. Bengal and Bangladesh; Andaman and Nicobar Is.

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PLATE 38

1. (292) CHESTNUTHEADED BEE-EATER *Merops leschenaulti* R Bulbul±: 21 cm. Central pin feathers projecting only slightly beyond tail. Chin and throat yellow. Mixed moist-deciduous forest near streams. Himalayan foothills from Kumaon to Arunachal Pradesh; NE. hill states; E. & W. Ghats; south to Kerala; Bangladesh; Sri Lanka; Andamans.

2. (293) BLUECHEEKED BEE-EATER *Merops superciliosus* RM Bulbul+: overall 31 cm. Pale chestnut patch on throat. Black streak from base of bill through eye to ear. Conspicuous white and blue green cheek patch. Near jheels and tanks, and sandy seashores. Pakistan south to Sind, and NW. India east to Kutch, Rajasthan and Delhi.

3. (294) BLUETAILED BEE-EATER *Merops philippinus* RM Bulbul+: overall 31 cm. Black stripe through eye. Chestnut throat and breast. Blue rump and tail. Open country near streams, jheels, and reservoirs. Breeds and/or seasonal in N. Pakistan N. and C. India, and patchily over the Subcontinent; Sri Lanka; Andaman and Nicobar Is.

4. (295) SMALL GREEN BEE-EATER *Merops orientalis* R Sparrow+: 21 cm. Central pair of tail feathers prolonged into blunt pins. Conspicuous black necklace. Open country and cultivation. Subcontinent; Sri Lanka.

5. (296) BLUEBEARDED BEE-EATER *Nyctyornis athertoni* R Pigeon+: 36 cm. Feathers at mid-throat and upper breast blue, lengthened into a beard. Secondary evergreen and moist-deciduous forest. Himalayan foothills from Himachal Pradesh east to Arunachal Pradesh; Assam; NE. hill states; E. and W. Ghat complexes, and suitable biotopes in peninsular India. Bangladesh.

6. (297) EUROPEAN ROLLER *Coracias garrulus* RM Pigeon±: 31 cm. Flight feathers blue black. Breast and underparts light blue. Wooded parkland and cultivation. *Breeding:* From Baluchistan to Chitral and Kashmir. On outbound passage migration through NW. and W. & SW. India and Deccan in autumn.

7. (298) ROLLER or BLUE JAY *Coracias beghalensis* R Pigeon±: 31 cm. Blue above with brown breast and pale blue abdomen and undertail. Bill black. Open country, cultivation, gardens, light deciduous forest, etc. Subcontinent, Lakshadweep; Sri Lanka.

8. (299) BROADBILLED ROLLER *Eurystomus orientalis* R Pigeon±: 31 cm. Dark greenish brown and blue black. Pale blue patch on wing conspicuous in flight. Cultivation clearings in evergreen and semi-evergreen forest. SW. India from W. Karnataka to Kerala and W. Tamil Nadu; Himalayan foothills from Haryana east to Arunachal Pradesh; NE. hill states; Bangladesh; Sri Lanka (rare); Andaman Is.

9. (300) HOOPOE *Upupa epops* RM Myna+: 31 cm. A conspicuous fan shaped crest and long gently curved bill distinctive. Open hillsides, cultivation, light forest and near villages. Subcontinent, Andamans; Sri Lanka.

PLATE 39

1. (303) RUFOUSNECKED HORNBILL *Aceros nipalensis* R Vulture+: 122 cm. Male with rufous neck, breast. Black above. Wings white tipped. Terminal half of tail white. Female all black except white wing tips and terminal half of tail. Tall evergreen forest up to *c.* 1800 m. E. Himalayan foothills; NE. hill states; Bangladesh (Chittagong hill tracts).

2. (304) WREATHED HORNBILL *Rhyticeros undulatus* R Vulture+: Male 114 cm; Female, with shorter bill, 98 cm. Tail white. Male with naked throat with yellow patch in the middle. Female all black except white tail. Evergreen forest and edges of clearings up to *c.* 2400 m. Sub-Himalayan duars and foothills from N. Bengal and Bhutan east to Arunachal Pradesh; NE. hill states; Bangladesh (Chittagong hill tracts).

3. (301) COMMON GREY HORNBILL *Tockus birostris* R Kite±: 61 cm. Brownish grey with an enormous black and white curved bill surmounted by a casque. Deciduous forest and groves near cultivation. Pakistan (Punjab) and India from Himalayan foothills south to Kerala.

4. (302) MALABAR GREY HORNBILL *Tockus griseus* R Kite±: 59 cm. Bill without casque. Slaty grey with whitish streaks. Tail white tipped except central pair. Open evergreen and moist-deciduous forest. Western Ghats complex from Bombay south to Kerala and W. Tamil Nadu; Sri Lanka, up to *c.* 1600 m.

5. (305) INDIAN PIED HORNBILL *Anthracoceros malabaricus* R Vulture-: Male 89 cm; Female smaller. Black and white hornbill with massive yellow and black bill with a casque ending in a single point. Black outer tail feathers white tipped. Moist-deciduous and remnant evergreen forest. From Haryana to Arunachal Pradesh; E. Ghats south to Bastar district and E. Andhra Pradesh. Bangladesh.

6. (306) MALABAR PIED HORNBILL *Anthracoceros coronatus* R Vulture±: Male 92 cm; Female smaller. Similar to Indian Pied Hornbill but with outer tail feathers all white. Remnant evergreen and moist-deciduous forest. SE. India from Uttar Pradesh and Bihar south through Orissa and Andhra Pradesh; also in the SW. from Ratnagiri south through Karnataka, Tamil Nadu and Kerala; Sri Lanka.

7. (307) GREAT PIED HORNBILL *Buceros bicornis* R Vulture+: Male 130 cm; Female smaller. Bill large, horn shaped yellow and black with concave shaped casque. Wings black with two white bars, tail white with a black subterminal band. Evergreen and moist-deciduous forest. Lower Himalayas from Kumaon east to Arunachal Pradesh; NE. hill states; W. Ghats complex from Khandala (Maharashtra) south to Kerala and W. Tamil Nadu, Bangladesh (Chittagong hill tracts).

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typical woodpecker flight

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PLATE 40

1. (314) CRIMSONBREASTED BARBET or COPPERSMITH *Megalaima haemacephala* R Sparrow+: 17 cm. Grass green with crimson breast and forehead. Yellow throat and green streaked yellowish underparts. Dry- and moist-deciduous biotope. Subcontinent; Sri Lanka.

2. (313) CRIMSONTHROATED BARBET *Megalaima rubricapilla* R Sparrow+: 17 cm. Grass green with crimson forecrown, forehead, chin, throat and upper breast. The latter streaked blackish. Crimson patch below eye and on cheek. Evergreen forest up to *c.* 1200 m. W. Ghats complex from Goa south to Kerala and W. Tamil Nadu.

3. (315) WRYNECK *Jynx torquilla* M Bulbul-: 19 cm. Silvery grey above streaked and vermiculated with black and fulvous. Whitish below with black cross barring. Thorn jungle, open deciduous scrub and cultivation. Subcontinent.

4. (324) PIGMY WOODPECKER *Picoides nanus* R Sparrow-: 14 cm. A diminutive pied woodpecker with a conspicuous broad white stripe from eye down side of neck. Female lacks scarlet streak on either side of hind crown. Groves, deciduous and semi-evergreen forest, up to *c.* 1200 m. Subcontinent (not in Pakistan); Sri Lanka.

5. (316) SPECKLED PICULET *Picumnus innominatus* R Sparrow-: 10 cm. A petite woodpecker with soft rounded black and white tail. A conspicuously white bordered blackish olive band behind eye and onto neck. Moist-deciduous and semi-evergreen forest up to 2000 m. Lower Himalayas from Hazara (Pakistan) east to Arunachal Pradesh; Assam; NE. hill states; W. and E. Ghat complexes; Orissa; Lower Bengal; Bangladesh.

6. (325) HEARTSPOTTED WOODPECKER *Hemicircus canente* R Sparrow+: 16 cm. Black and buff woodpecker with large crested head and stumpy rounded tail. Sexes dissimilar. Moist-deciduous and secondary evergreen forest. W. Ghats complex from Kerala north to Tapti river and east to Madhya Pradesh and Orissa; Bangladesh; NE. hill states.

7. (319) SMALL YELLOWNAPED WOODPECKER *Picus chlorolophus* R Myna+: 27 cm. Yellowish green with golden nuchal crest. Forehead, supercilium, nape, moustachial streak crimson. Female with crimson confined to nape. Mixed deciduous and evergreen secondary jungle. Himalayas up to c. 2100 m; Bihar, E. India; peninsular India south of the Satpuras, Orissa; Sri Lanka; Bangladesh.

8. (318) LITTLE SCALYBELLIED GREEN WOODPECKER *Picus myrmecophoneus* R Myna+: 29 m. Grass green above with yellow rump. Prominent white supercilium black bordered above. Crown and crest crimson in male, black in female. Semi-evergreen, moist-deciduous and sal forest. Haryana, Rajasthan and Gujarat east to Bangladesh, south to Karnataka (Bangalore); Sri Lanka.

9. (323) YELLOWFRONTED PIED or MAHRATTA WOODPECKER *Picoides mahrattensis* R Bulbul-: 18 cm. Irregularly spotted black and white above. Scarlet crimson on abdomen and vent. Female without scarlet in crest. Semi-desert to moist-deciduous biotope. Subcontinent west to Indus river. Sri Lanka.

PLATE 41

1. (317) RUFOUS WOODPECKER *Micropternus brachyurus* R Myna+: 25 cm. Chestnut-rufous cross barred with black on wings and tail. Crescent shaped crimson patch below eye in male. Moist-deciduous biotope. Subcontinent; Sri Lanka.

2. (326) BLACKBACKED WOODPECKER *Chrysocolaptes festivus* R Pigeon-: 29 cm. Distinguished from goldenbacked woodpecker by the white V on upper black back and fulvous white, foreneck with five narrow longitudinal streaks. Deciduous forest. From C. Rajasthan and E. Gujarat to lower Bengal, and U.P. terai, SW. Nepal and S. Bihar, Madhya Pradesh, Maharashtra to Kerala; Sri Lanka.

3. (321) INDIAN GOLDENBACKED THREETOED WOODPECKER *Dinopium javanense* R Myna±: 28 cm. Separated from the similar Goldenbacked woodpecker by crimson rump and orange or scarlet mixture on upper back. Crown and crest crimson in male, black stippled white in female. Moist-deciduous and evergreen forest. SW. India from Goa south through Kerala and adjacent hills of Tamil Nadu; Assam, NE. hill states(?), Bangladesh (Chittagong region).

4. (320) LESSER GOLDENBACKED WOODPECKER *Dinopium benghalense* R Myna+: 29 cm. Golden yellow and black above, buffy white streaked with black below. Crown and crest crimson in male, female with only crest crimson. Dry and moist-deciduous biotope. Pakistan and the rest of the Subcontinent; Bangladesh; Sri Lanka.

5. (322) GREAT BLACK WOODPECKER *Dryocopus javensis* R Crow+: 48 cm. Forehead, crown, crest and cheeks crimson in male, only nape crimson in female. White rump and white underparts conspicuous. Evergreen and moist-deciduous forest, up to *c.* 1200 m. The entire W. Ghats complex south to Kerala; E. Madhya Pradesh; E. Ghats complex?

6. (311) SMALL GREEN BARBET *Megalaima viridis* R Myna+: 23 cm. Grass green with naked eye patch black. White cheek stripe. White chin and throat. Breast white streaked with brown. Evergreen and moist-deciduous forest, gardens and groves. W ghats complex from Narmada river south through Kerala; Shevaroy and Chitteri hills.

7. (312) BLUETHROATED BARBET *Megalaima asiatica* R Myna±: 23 cm. Grass green with crimson crown and forehead. Transverse black band above eye. Sides of head, chin, throat and foreneck pale blue. Crimson spot on each side of neck and at base of bill. Light deciduous and evergreen forest and groves. Lower Himalayas (up to *c.* 2000 m) from Rawalpindi and Kashmir east to Arunachal Pradesh; south to Manipur, Chittagong and Calcutta.

8. (309) LARGE GREEN BARBET *Megalaima zeylanica* R Myna+: 27 cm. Grass green with head, neck, and breast brown streaked with white. Conspicuous orange bare patch around eye extended to bill. Well-wooded moist-and dry-deciduous country, often entering gardens within city limits. Subcontinent; Sri Lanka.

9. (310) LINEATED BARBET *Megalaima lineata* R Myna+: 28 cm. Similar to large green barbet, broadly streaked, yellow eye patch small and does not extend to nape. Moist-deciduous and light secondary forest, and gardens. Lower Himalayas (up to *c.* 1000 m) from Dehra Dun east through Arunachal Pradesh; NE. hill states; Bangladesh; N. Orissa.

10. (308) HIMALAYAN GREAT BARBET *Megalaima virens* R Myna+: 33 cm. Brightly coloured barbet with heavy yellow bill with bristles at base. Maroon crown with violet blue, black head. Bright scarlet patch under tail. Subtropical evergreen and moist-temperate forest, *c.* 1000-3000 m. Himalayas; NE. hill states; Bangladesh (Chittagong region).

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PLATE 42

1. (327) LONGTAILED BROADBILL *Psarisomus dalhousiae* R Bulbul+: 27 cm. Gaudy grass green bird with long graduated tail, blue above black below. Chin and throat bright yellow. Tropical and subtropical evergreen forest. E. Himalayas west to Garhwal; NE. hill state; Bangladesh (hills); up to *c.* 2000 m.

2. (328) BLUENAPED PITTA *Pitta nipalensis* R Quail+: 25 cm. Blue and greenish fulvous above, fulvous below. Nape, hindneck bright blue in males, hind neck green in female. Tropical and subtropical secondary evergreen and bamboo jungle. E. Himalayas; NE. hill states; Bangladesh (hills); up to *c.* 2000 m.

3. (329) INDIAN PITTA *Pitta brachyura* R Quail±; 19 cm. Green, blue, fulvous, black and white above. Crimson abdomen. White spot near wing tip conspicuous in flight. Scrub jungle, light deciduous or dense evergreen forest. Subcontinent; Sri Lanka.

4. (330) HOODED or GREENBREASTED PITTA *Pitta sordida* R Quail±: 19 cm. Largely green, upper tail coverts, shoulder and patch on wing bright blue. Abdomen blue, vent bright crimson. Moist-deciduous and evergreen secondary forest and scrub jungle. From C. Nepal and lower Bengal east; up to *c.* 2000 m; Nicobar Is. Obtained at Simla; Dehra Dun (sight).

5. (331) SINGING BUSH LARK *Mirafra javanica* R Sparrow±: 15 cm. Like female sparrow but with more chestnut on wings. Outer tail feathers white. Chestnut patch on wing conspicuous in flight and diagnostic. Grassland, fallow cultivation and sparse scrubby semi-desert. Pakistan and most of the Subcontinent.

6. (332) BUSH LARK *Mirafra assamica* R Sparrow±: 15 cm. Ashy brown above. Semi-desert, sparse scrub jungle, grassland and cultivation. From Haryana eastwards, Arunachal, south to Orissa and Madhya Pradesh, Karnataka. Sri Lanka.

7. (333) REDWINGED BUSH LARK *Mirafra erythroptera* R Sparrow±. 14 cm. Distinguished from other larks of similar size by the large chestnut patch on the wings. Sparse scrub jungle and fallow land at low elevations. Plains of Pakistan, NW. India and most of the Subcontinent.

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PLATE 43

1. (334) BLACKBELLIED FINCH-LARK *Eremopterix grisea* R Sparrow-: 13 cm. Crestless small lark. Male sandy brown above, black below. Female rather like hen house sparrow. Sparsely scrubbed waste land, stubble and ploughed fields. Subcontinent; Sri Lanka.

2. (335) RUFOUSTAILED FINCH-LARK *Ammomanes phoenicurus* R Sparrow±: 16 cm. Rufous brown lark with a bright rufous tail ending in a black band. Open stony scrub-and-bush plains and plateau country, fallow land and near cultivation. Pakistan, N. India and most of the Subcontinent except the NE. and Kerala. Sri Lanka.

3. (337) SAND LARK *Calandrella raytal* R Sparrow-: 13 cm. Smaller than short-toed lark. Greyish sandy streaked with brown below. Short black and white tail. Sandy river banks and islets. From Peshawar and the Makran coast to Kutch; throughout the entire Ganges and Brahmaputra river systems in N.India, Assam, Bangladesh and Bengal; Madhya Pradesh south to Hoshangabad and Mhow.

4. (336) SHORT-TOED LARK *Calandrella cinerea* M Sparrow±: 15 cm. Sandy or greyish brown streaked with black. Gregarious habit and white underparts contrasting with black tail diagnostic. Stony grassland, sandy semi-desert and saltflats. Subcontinent. Absent in Sri Lanka, Andaman and Nicobar Is.

5. (338) CRESTED LARK *Galerida cristata* R Sparrow+: 18 cm. Large size and prominent pointed crest diagnostic. Sandy semi-desert and cultivated plains. Pakistan; N. India and NE. hill states.

6. (339) SYKES'S CRESTED LARK *Galerida malabarica* R Sparrow±: 13 cm. Small rufous brown lark with upstanding pointed crest. Stony, sparsely scrubbed plateau country and dry cultivation. S. peninsular India.

7. (340) INDIAN SMALL SKYLARK *Alauda gulgula* R Sparrow±: 16 cm. Resembles hen-sparrow. Broad dark streaks on fulvous upper plumage. Breast narrowly streaked with blackish brown. Outermost tail feathers largely white. Grassland and young crops. Subcontinent; Sri Lanka. Absent in Andaman and Nicobar Is.

PLATE 44

1. (341) DUSKY CRAG MARTIN *Hirundo concolor* R Sparrow-: 13 cm. Sooty brown. Tail square. Swallow-like wings and flight. Round white spot on all tail feathers except middle and outermost pair. Vicinity of crags, forts, old buildings, etc. Practically all subcontinent. Not in Andamans, Nicobars, Bangladesh and Sri Lanka.

2. (342) SWALLOW *Hirundo rustica* RM Sparrow±, with long forked tail: overall 18 cm. Glossy steel blue above, pale pinkish white below. Chestnut forehead and throat with a glossy black pectoral band. Open cultivated country, and around human settlements. *Breeding*: Pakistan and along the Himalayas up to *c.* 3000 m. Assam (Cachar). *Winter*: Subcontinent, Andamans, Nicobars, Lakshadweep; Sri Lanka; Maldives.

3. (343) NILGIRI HOUSE SWALLOW *Hirundo tahitica* R Sparrow-: 13 cm. Except for chestnut forehead, black above with a metallic green sheen, chin, throat and upper breast chestnut. Grassy slopes and near settlements. W. Ghats complex in SW. India; Sri Lanka; Andaman Is.

4. (345) INDIAN CLIFF SWALLOW *Hirundo fluvicola* R Sparrow-: 12 cm. Very like Crag Martin but glossy steel blue above, chestnut forehead and crown whitish below streaked with brown on throat and upper breast. Open country and cultivation around rivers and canals. Pakistan; N. India up to *c.* 84°E. One record each from Tamil Nadu and Sri Lanka.

5. (344) WIRETAILED SWALLOW *Hirundo smithii* R Sparrow±: 14 cm. Readily distinguished from other swallows by the glistening white underparts and two long, fine, 'wires' in the tail. Open country, cultivation, near water. Subcontinent. Not in Andamans and Nicobars. Sri Lanka (once).

6. (346) STRIATED or REDRUMPED SWALLOW *Hirundo daurica* RM Sparrow±, with longer tail: overall 20-23 cm. Deeply forked tail and the chestnut rump are diagnostic. Open, broken or cultivated country. Subcontinent, Andamans (?), Car Nicobar; Sri Lanka.

7. (347) HOUSE MARTIN *Delichon urbica* RM Sparrow±: 15 cm. Glossy blue black above with white rump and pure white below. Around cliffs. Pakistan and Himalayas east to Arunachal Pradesh. Occasionally wintering as far south as Kerala.

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PLATE 45

1. (348) GREY SHRIKE *Lanius excubitor* RM Myna+: 25 cm. Silver grey bird with a black 'mask' from bill through eye. Wing with a white patch or 'mirror' conspicuous in flight. Tropical thorn and dry-deciduous biotope. Pakistan from NWFP and Baluchistan east through continental and peninsular India and Bangladesh in appropriate facies.

2. (349) BAYBACKED SHRIKE *Lanius vittatus* R Bulbul-: 18 cm. Chestnut maroon back, white underparts, black and white graduated tail. Grey and white head with broad black band across forehead and through eyes. Mirror spots on wings. Dry-deciduous open thorn scrub jungle, outskirts of cultivation. Subcontinent. Absent in Andamans, Nicobars and Sri Lanka.

3. (350) RUFOUSBACKED SHRIKE *Lanius schach* R Bulbul+: 25 cm. Head grey, lower back and rump bright rufous. Forehead and 'mask' black. Open wooded country and cultivation. Subcontinent. Absent in Andaman and Nicobar Is.

4. (351) BROWN SHRIKE *Lanius cristatus* M Bulbul±: 19 cm. Reddish brown above except for white forehead and supercilium. Black 'mask'. Tail rufous brown. Wings brownish black. Chin, cheek and throat white. Dry-deciduous and semi-evergreen scrub and scattered bushes. Locally in the Subcontinent. Also Lakshadweep, Andamans, Nicobars, Sri Lanka and Maldives.

5. (353) BLACKNAPED ORIOLE *Oriolus chinensis* RM Myna+: 25 cm. Similar to Golden Oriole but with black eye band continued behind to meet over nape. Mixed deciduous and evergreen jungle, plantations, gardens. Subcontinent; Andaman and Nicobar Is.; Sri Lanka (a 100 year old record).

6. (352) GOLDEN ORIOLE *Oriolus oriolus* RM Myna+: 25 cm. Golden yellow with black in wings and tail and a conspicuous black streak through eye. Female duller and greener. Deciduous and semi-evergreen biotope: groves, orchards, cultivation, gardens, etc. Subcontinent.

7. (355) MAROON ORIOLE *Oriolus traillii* R Myna+: 28 cm. Glossy crimson maroon with black head, neck and wings. Female and immature male with greyish white black streaked underparts. In flight square cut crimson tail diagnostic. Moist-deciduous and evergreen forest. Lower Himalayas; NE. hill states; Bangladesh (Chittagong region); up to *c.* 2400 m.

8. (354) BLACKHEADED ORIOLE *Oriolus xanthornus* R Myna+: 25 cm. Golden yellow with jet black head, throat and upper breast. Black in wings and tail. Bill pink, eyes crimson. Tropical moist-deciduous biotope: Light forest, plantations, village groves, gardens, etc. Subcontinent; Sri Lanka; Andaman Is.

PLATE 46

1. (356) BLACK DRONGO or KING-CROW *Dicrurus adsimilis* R Bulbul+: 31 cm. Glossy black bird with deeply forked tail. Open deciduous forest and cultivation. Subcontinent; Sri Lanka.

2. (362) RACKET-TAILED DRONGO *Dicrurus paradiseus* R Myna±, with longer tail: overall 31-35 cm. Glossy black drongo with tufted forehead and two long wire-like spatula tipped 'streamers' in the tail. Deciduous and evergreen forest, bamboo jungle and edges of cultivation. Subcontinent (Absent in Pakistan); Andamans and Nicobars; Sri Lanka.

3. (363) ASHY SWALLOW-SHRIKE *Artamus fuscus* R Bulbul±: 19 cm. Sleek slate grey bird, paler below. Heavy bluish, sparrow-like bill. Flight swallow-like but appearance heavier. Open dry- and moist-deciduous country, closely associated with *tad* (Palmyra) palms. Subcontinent; Sri Lanka.

4. (357) GREY or ASHY DRONGO *Dicrurus leucophaeus* RM Bulbul+: 30 cm. Slate black drongo with deeply forked tail. Crimson eyes diagnostic. Moist-deciduous, semi-evergreen and pine forest, plantations, etc. *Breeding*: Himalayas, up to *c.* 3000 m. *Winter*: Well-wooded plains and hills south to Kerala; Andamans (Narcondam Is.); Bangladesh; Sri Lanka.

5. (358) WHITEBELLIED DRONGO *Dicrurus caerulescens* R Bulbul+: 24 cm. Glossy indigo above with white belly. Tail deeply forked. Dry- and moist-deciduous and bamboo forest. Subcontinent; Sri Lanka.

6. (360) BRONZE DRONGO *Dicrurus aeneus* R Bulbul+: 24 cm. Small black forest drongo with bronze green and blue gloss. Tail not deeply forked. Bill broad and flattened like a flycatcher. Tropical evergreen and moist-deciduous forest and scrub. Himalayan foothills from Mussoorie east to Arunachal Pradesh; NE. hill states; W. Bengal; E. and W. Ghat complex; up to *c.* 2000 m. Bangladesh.

7. (359) CROWBILLED DRONGO *Dicrurus annectans* R Myna+: 27 cm. Jet black with stout bill, tail less deeply forked than that of the Common Drongo. Tropical wet evergreen and semi-evergreen, moist-deciduous and sal forest. Himalayas from Kumaon east to Arunachal Pradesh; Assam and NE. hill states; up to *c.* 600 m. Bangladesh.

8. (361) HAIRCRESTED DRONGO *Dicrurus hottentottus* R Myna±, with longer tail; overall 31 cm. Glossy, spangled, blue black drongo. Slightly forked tail upcurved at the ends. Moist-deciduous and evergreen forest. Himalayan foothills from Himachal Pradesh east to Arunachal Pradesh, south through NE. hill states to Bengal, Bihar, Orissa, and Madhya Pradesh; E. & W. Ghats complex north to Bombay; up to *c.* 1400 m. Straggler to Kutch. Bangladesh.

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PLATE 47

1. (364) SPOTTEDWINGED STARE *Saroglossa spiloptera* M? Bulbul±: 19 cm. Brownish grey scalloped with black above. Chin and throat deep chestnut rufous, otherwise rusty white below. Female sooty brown. Scalloped with white below. Prominent white patch on black wings. Open tall forest. *Summer*: Himalayas. *Winter*: Assam, south to Bangladesh (Dhaka, Chittagong).

2. (367) ROSY PASTOR or ROSECOLOURED STARLING *Sturnus roseus* M Myna±: 23 cm. Rose-pink with black head, neck, upper breast, wings, tail and crest. Winter plumage dull and brownish. Open cultivation, grassland and semi-desert. Pakistan; continental and peninsular India; Sri Lanka; Bangladesh.

3. (366) BRAHMINY or BLACKHEADED MYNA *Sturnus pagodarum* R Myna-: 22 cm. Grey above, reddish fawn below. Glossy black crown and long recumbent crest. Brown white tipped tail. Open deciduous forest and scrub jungle, and near cultivation and habitations. Subcontinent; Sri Lanka.

4. (365) GREYHEADED MYNA *Sturnus malabaricus* R Myna-: 21 cm. Small trim myna, brownish silvery grey above, rusty brown below with blackish wing quills. Thinly wooded country and secondary jungle. Continental and peninsular India. Has wandered in winter to Lower Sind (Thatta dist.) and Sri Lanka.

5. (370) INDIAN MYNA *Acridotheres tristis* R Pigeon-: 23 cm. Dark brown with bright yellow bill, legs and orbital skin. White patch on wing conspicuous in flight. Neighbourhood of homesteads, villages and cities. Subcontinent; Sri Lanka. Introduced in the Andaman, Nicobar, Maldive and Lakshadweep Is.

6. (368) STARLING *Sturnus vulgaris* M Bulbul±: 19-20 cm. Slim glossy black myna with metallic green and purple reflection finely stippled with white. Cultivations, orchards, marshes and vicinity of habitations. *Summer*: NWFP east through Kashmir. *Winter*: Pakistan and N. India east to Bangladesh, south to Gujarat, Madhya Pradesh and Andhra Pradesh.

7. (373) GOLDCRESTED MYNA *Mino coronatus* R Myna±: 21 cm. Glossy black with golden yellow crest, crown and throat. Orbital skin orange yellow. White and yellow wing bar diagnostic in flight. Moist deciduous and semi-evergreen open forest and cultivation clearings. Assam, NE. hill states; Bangladesh.

8. (372) JUNGLE MYNA *Acridotheres fuscus* R Myna±: 23 cm. Similar to Indian Myna but more greyish. Absence of bare orbital skin and the bushy upstanding feathers on forehead diagnostic. Well-wooded country in the vicinity of cultivation and villages. Himalayas; NE. hill states; Bangladesh (Chittagong). Patchily in continental and peninsular India.

9. (374) HILL MYNA *Gracula religiosa* R Myna±: 25-29 cm. Glossy jet black with yellow bill, legs and bright orange patches of naked skin and wattles. Loud creaky shrieking call diagnostic. Evergreen and semi-evergreen forest and vicinity of cultivation. Himalayan foothills from Kumaon east; NE. hill states; E. and W. Ghat complexes south of *c.* 17°N; Sri Lanka; Andaman and Nicobar Is. Bangladesh (Chittagong).

10. (371) BANK MYNA *Acridotheres ginginianus* R Myna-: 21 cm. Bluish grey myna with brick red orbital skin. Neighbourhood of human habitations. Pakistan; continental and peninsular India south to Maharashtra, Madhya Pradesh and Orissa.

11. (369) PIED MYNA *Sturnus contra* R Myna±: 23 cm. Black and white myna with orange orbital skin and deep orange and yellow bill. Open country and cultivation. From Haryana east to NE. India and Bangladesh; Himalayan foothills, south through Madhya Pradesh to Deccan. Extending range into Pakistan.

PLATE 48

1. (375) GREEN MAGPIE *Cissa chinensis* R Myna±; with longer tail; overall 47 cm. Leaf green, long tailed bird with conspicuous red wings and black 'mask'. Tropical and sub-tropical evergreen secondary forest and moist-deciduous bamboo jungle. Himalayas; Assam and NE. hill states; Bangladesh (Chittagong); up to *c.* 1600 m.

2. (376) YELLOWBILLED BLUE MAGPIE *Cissa flavirostris* R Pigeon ± with tail *c.* 39-43 cm. Purplish blue, with black head, neck, breast. White patch on nape and below. Long streamered tail. Bill yellow. Legs orange. In wet temperate mixed forests. Himalayas from Hazara (Pakistan) to Arunachal Pradesh. Usually not below 1000 m.

3. (377) TREE PIE *Dendrocitta vagabunda* R Myna+, with long tail: overall 50 cm. Chestnut brown bird with sooty head and neck. Black tipped grey tail and greyish white wing patches conspicuous in flight. Dry- and moist-deciduous biotope lightly wooded country, gardens, etc. Subcontinent. Absent in Sri Lanka and Andaman and Nicobar Is.

4. (378) WHITEBELLIED TREE PIE *Dendrocitta leucogastra* R Myna+, with long tail: overall 50 cm. Chestnut back and pure white hindneck, rump and underparts distinctive. A large white patch on the black wings conspicuous in flight. Wet evergreen biotope. Southern W. Ghats complex through Kerala and Tamil Nadu, east to Bangalore and Andhra Pradesh.

5. (379) HIMALAYAN TREE PIE *Dendrocitta formosae* R Myna±, with long tail: overall 42-43 cm. Sooty brown tree pie with elongated tail feathers ashy grey and black tipped. White wing patch and chestnut under tail conspicuous in flight. Tropical and subtropical moist-deciduous and semi-evergreen forest and well-wooded country. Himalayas, seasonally between *c.* 600 and 2100 m; NE. hill states; Assam and Bengal. An isolated pocket in E Ghats (Vishakhapatnam section).

6. (380) HOUSE CROW *Corvus splendens* R Pigeon+: 43 cm. Grey neck and smaller size separates it from the Jungle Crow. Human habitations: towns and cities. Subcontinent. Sri Lanka.

7. (382) RAVEN *Corvus corax* R Kite+: 69 cm. Larger version of the Jungle Crow with heavier bill. Peculiar creaking noise of wing quills and wedge shaped tail diagnostic in flight. Near towns and villages, desert settlements and semi-desert areas. NWFP, Baluchistan, Sind and desert parts of NW. India, and along the higher Himalayas (Tibetan steppe facies) to Arunachal Pradesh. Stragglers recorded in Maharashtra and Madhya Pradesh.

8. (381) JUNGLE CROW *Corvus macrorhynchos* R Crow+: 48-50 cm. A glossy jet black crow with a hoarse 'caw' call. Wooded country and outskirts of towns and cities. Subcontinent, Andamans; Bangladesh; Sri Lanka. Absent in Nicobar Is.

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PLATE 49

1. (383) PIED FLYCATCHER-SHRIKE *Hemipus picatus* R Sparrow±: 14 cm. Black and white flycatcher like bird with a characteristic hunchbacked profile when perched. Dry- and moist-deciduous biotope: light forest. Lower Himalayas: Simla to Arunachal Pradesh; NE. hill states; up to *c.* 2250 m; C. and peninsular India; Bangladesh; Sri Lanka.

2. (385) COMMON WOOD SHRIKE *Tephrodornis pondicerianus* R Bulbul-: 16 cm. Greyish brown, with a dark stripe below eye and a distinct whitish supercilium. Hook tipped bill. Tail short and square. Dry-deciduous scrub, secondary jungle, gardens, etc. Subcontinent; Sri Lanka.

3. (384) LARGE WOOD SHRIKE *Tephrodornis virgatus* R Myna±: 23 cm. Separated from the Common Wood Shrike by its larger size and brown, rufous tipped outer tail feathers. Tall trees in evergreen and moist-deciduous forest. W. Ghats complex, up to *c.* 1800 m; Himalayas from Uttar Pradesh; NE. hill states; Bangladesh up to *c.* 1000 m.

4. (387) BLACKHEADED CUCKOO-SHRIKE *Coracina melanoptera* RM Bulbul±: 20 cm. Male ash grey with black head wings and tail. Female head grey, underparts barred black and white. Open deciduous forest and scrub jungle. Practically throughout Subcontinent; Sri Lanka.

5. (386) LARGE CUCKOO-SHRIKE *Coracina novaehollandiae* R Pigeon-: 28 cm. Thickset grey bird, whitish from breast down with broad eye streak. Wings and tail black. Female barred grey and white below. Deciduous and mixed forest, scrub and cultivation. Lower Himalayas; NE. hill states; most of Subcontinent; Sri Lanka; Andaman Is.

6. (388) SCARLET MINIVET *Pericrocotus flammeus* R Bulbul±: 20 cm. Male, glistening black and orange red to deep scarlet. Female, young male, grey and olive yellow above, yellow below, two yellow bars on black wings. Deciduous, mixed and evergreen forest: Plains and hills. Lower Himalayas, NE. hill states, E. and SW. peninsular India, Andamans; Bangladesh; Sri Lanka.

7. (389) LONGTAILED MINIVET *Pericrocotus ethologus* R Bulbul-: 18 cm. Glossy black and scarlet with a large inverted U-shaped scarlet patch on black wing. Female with yellow throat and crimson of male replaced with yellow. Open deciduous forest. *Breeding*: Lower Himalayas; NE. hill states; Bangladesh (Chittagong). *Winter*: Himalayan foothills and NW. Subcontinent. Straggler to Sind, Madhya Pradesh, Gujarat and Maharashtra.

8. (390) ROSY MINIVET *Pericrocotus roseus* R Bulbul-: 18 cm. Distinguished from other minivets by scarlet being replaced by deep pink. Female has olive yellow rump as against bright yellow rump of other minivets. Deciduous or evergreen lightly wooded country. Himalayas from NWFP east; NE. hill states up to 1800 m.; Pakistan and N. Indian Plains; Sporadically in the peninsula.

9. (391) SMALL MINIVET *Pericrocotus cinnamomeus* R Sparrow-, with longer tail: 15 cm. Male, black, grey and orange-crimson. Female young male with no black on head and yellow replacing red. Deciduous forest, open scrub, groves of trees, etc. Subcontinent.

10. (392) WHITEBELLIED MINIVET *Pericrocotus erythropygius* R Sparrow-, with longer tail: 15 cm. Distinguished from other minivets by its pied colouration, white wing patch and orange red rump and breast. In female black replaced by grey and rump and breast white and orange. Dry-deciduous forest and thorn scrub. N., C. and peninsular India.

PLATE 50

1. (393) IORA *Aegithina tiphia* R Sparrow±: 14 cm. Black and yellow tit-like bird with two white wing bars. In non-breeding plumage largely greenish yellow, but male has black tail. Open forest, cultivation and scrub jungle. Subcontinent; Sri Lanka.

2. (394) MARSHALL'S IORA *Aegithina nigrolutea* R Sparrow±: 14 cm. Male has a pure yellow collar in the breeding plumage. Tail black with broad white tip in both sexes. Dry-deciduous scrub, thorn jungle and groves. Pakistan and NW. India.

3. (395) GOLDFRONTED CHLOROPSIS or GREEN BULBUL *Chloropsis aurifrons* R Bulbul±: 19 cm. Grass green with bright golden forehead, purple and black chin and throat. Deciduous and evergreen forest and secondary scrub. Himalayan foothills from Garhwal east and Subcontinent (minus Pakistan); Sri Lanka.

4. (396) GOLDMANTLED CHLOROPSIS *Chloropsis cochinchinensis* R Bulbul-: 18 cm. No golden orange on forehead. Purplish blue moustachial streaks. Female has pale blue green chin, throat and bright greenish blue moustachial streaks. Deciduous and evergreen forest, gardens, groves, etc. NE. hill states; Bangladesh; continental and peninsular India; Sri Lanka.

5. (398) BLACKHEADED BULBUL *Pycnonotus atriceps* R Bulbul-: 18 cm. Black head, olive on body. Tail black with subterminal yellow band. In grey phase terminal band white. Deciduous forest, light jungle, gardens, etc. NE. hill states; Bangladesh; up to *c.* 700 m. Andaman Is.

6. (397) FAIRY BLUEBIRD *Irena puella* R Myna+: 27 cm. Brilliant ultramarine blue above. Deep velvety black below. Female dull blue green with blackish lores. Evergreen and moist-deciduous forest. Range disjunct: 1. SW. India (W. Ghats complex) up to *c.* 1800 m. 2. E. Himalayan foothills; NE. hill states; hills of Bangladesh; up to *c.* 1200 m. 3. Andaman and Nicobar Is. 4. E. Ghats and Orissa. Extinct in Sri Lanka.

7. (399) GREYHEADED BULBUL *Pycnonotus priocephalus* R Bulbul-: 19 cm. Grey headed olive green bulbul with conspicuously light coloured iris. Dense evergreen swampy jungle. W. Ghats complex south of Goa to Kerala; east to the Nilgiris and Palnis (Tamil Nadu).

8. (400, 401) BLACKHEADED YELLOW BULBUL *Pycnonotus melanicterus* R Bulbul±: 18 cm. Crest, head glossy black, olive yellow above, lower bright oil-yellow. The southern crestless race (401) has a rubythroat. Sri Lanka race has yellow throat. Moist-deciduous and evergreen forest and scrub. Himalayan foothills from Kumaon to Arunachal Pradesh; NE. hill states; Orissa, NE. Andhra, and E. Madhya Pradesh; W. Ghats Goa southwards; up to *c.* 1800 m. Bangladesh (Chittagong). Sri Lanka.

Ruby-throated race

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Plate 51

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PLATE 51

1. (404) REDVENTED BULBUL *Pycnonotus cafer* R Myna-: 20 cm. Partially crested black head. Conspicuous crimson patch below root of tail and a white rump, the latter very obvious in flight. Cultivation and scrub. Subcontinent; Sri Lanka. Absent in Andaman and Nicobar Is.

2. (403) WHITECHEEKED BULBUL *Pycnonotus leucogenys* R Myna-: 20 cm. Glistening white cheeks and sulphur yellow under root of tail diagnostic. Open scrub and cultivation, gardens, etc. Himalayan foothills, *c.* 2000-3000 m, from Kashmir east to Arunachal Pradesh. Semi desert biotope: scrub, coastal mangroves and gardens, etc. Pakistan and NW. Indian plains.

3. (402) REDWHISKERED BULBUL *Pycnonotus jocosus* R Myna : 20 cm. Crimson 'whiskers' and crimson patch under root of tail diagnostic. Scrub jungle, light forest and semi-cultivation. Subcontinent; Andamans; Nicobars (introduced). Absent in Pakistan and Sri Lanka.

4. (405) STRIATED GREEN BULBUL *Pycnonotus striatus* R Myna-: 20 cm. An upstanding brownish olive crest, olive green streaked with white above. Yellow ring around eye. Belly olive with yellow stripes. Evergreen jungle, oak and rhododendron forest. E. Himalayas; NE. hill states; up to *c.* 3000 m.

5. (406) YELLOWTHROATED BULBUL *Pycnonotus xantholaemus* R Myna-: 20 cm. Uncrested grey and yellow bulbul with yellow crown, chin, throat, under tail coverts and tips of tail. Sparse thorn scrub jungle interspersed with large trees among broken stony hillocks. The hills of S. Andhra Pradesh, E. Karnataka and N. Tamil Nadu.

6. (407) WHITEBROWED BULBUL *Pycnonotus luteolus* R Myna-: 20 cm. Uncrested sober brownish olive green bulbul with conspicuous white eyebrows and forehead. Dry open scrub country and gardens. Midnapur (West Bengal); peninsular India south of Madhya Pradesh; Sri Lanka.

7. (408) YELLOWBROWED BULBUL *Hypsipetes indicus* R Myna-: 20 cm. Uncrested olive yellow above,.lemon yellow below. Bright yellow forehead and eyebrow. Evergreen jungle, sholas and coffee shade-trees. W. Ghats from Poona and Satara district south; Sri Lanka.

8. (409) BLACK BULBUL *Hypsipetes madagascariensis* R Bulbul+: 23 cm. Slate grey, blackcrested bulbul, slightly forked tail and red bill and legs. Tall moist-deciduous and evergreen forest. Himalayas; NE. hill states; W. Ghats complex south of Bombay; Sri Lanka; Bangladesh.

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PLATE 52

1. (410) SPOTTED BABBLER *Pellorneum ruficeps* R Bulbul-: 15 cm. Olive brown babbler with reddish brown cap. Whitish breast heavily streaked or spotted with brown. Evergreen or deciduous foothills forest, scrub and secondary growth. Himalayas; NE. hill states; most of Subcontinent.

2. (412) RUFOUSBELLIED BABBLER *Dumetia hyperythra* R Sparrow-: 13 cm. Olive brown above, rusty fulvous below. Deciduous or evergreen biotope; grassland and scrub. Base of Himalayas, Simla to Darjeeling duars, Bengal south to Krishna river, west to a line Hyderabad-Jalna-Mhow-Jhansi. Bangladesh; Sri Lanka.

3. (414) REDCAPPED BABBLER *Timalia pileata* R Sparrow+: 17 cm. Crown chestnut, lores and bill black. Back and tail brown. Streak over eye and ear coverts white. Wet-evergreen biotope: flood plains with tall grass, reed-beds, brushwood and scrub jungle. E. Himalayan terai, duars, etc.; NE. hill states; Bangladesh.

4. (413) YELLOWBREASTED BABBLER *Macronous gularis* R Sparrow-: 11 cm. Greyish olive with tawny olive wings and cap. Pale yellow below with dark streaks on breast. Evergreen and moist-deciduous biotope: foothills bamboo jungle, long grass and brushwood. E Himalayas; NE. hill states; eastern peninsular India; Bangladesh.

5. (415) YELLOWEYED BABBLER *Chrysomma sinense* R Bulbul-: 18 cm. Cinnamon and chestnut brown above. White below. Conspicuous orange yellow ring round eye. Scrub, thorn jungle, reed-beds, bamboo, etc. in dry-deciduous facies. Practically throughout the Subcontinent; Sri Lanka.

6. (432) QUAKER BABBLER *Alcippe poioicephala* R Sparrow±: 15 cm. Small olive brown babbler. Head and neck ashy grey. Wings and tail rusty brown. Evergreen and moist-deciduous biotope: forest, bamboo jungle, open scrub, canebrakes, etc. Peninsular India, hills and plains; Assam; NE. hill states; Bangladesh.

7. (429) SILVEREARED MESIA *Leiothrix argentauris* R Sparrow±: 15 cm. A brightly coloured arboreal Babbler. Silver ear coverts diagnostic. Evergreen biotope: Open forest, scrub jungle, secondary growth. Himalayas from Garhwal east; NE. hill states; Bangladesh (Chittagong region) up to *c.* 2100 m.

8. (431) WHITEHEADED SHRIKE-BABBLER *Gampsorhynchus rufulus* R Bulbul+: 23 cm. Whole head, nape, shoulder patch, throat, breast white. Belly buffy white. Otherwise olive brown. Evergreen biotope: secondary growth, bamboo, bush-and-grass jungle, and undergrowth in forest. E. Himalayas; NE. hill states; Bangladesh; up to *c.* 1200 m.

9. (411) SLATYHEADED SCIMITAR BABBLER *Pomatorhinus horsfieldi* R Myna-: 22 cm. Slaty head, dark brown above, white throat, breast and prominent eyebrows. Curved yellow bill. Evergreen and deciduous forest, thorn scrub and bamboo jungle. *c.* 1500 m; practically entire subcontinent. Sri Lanka.

PLATE 53

1. (416) COMMON BABBLER *Turdoides caudatus* R Bulbul+: 23 cm. Earthy brown streaked darker. Tail long, graduated, finely cross-rayed. Thorn scrub jungle, rambling compounds, etc. in semi-desert and dry plains. Most of the Subcontinent; Lakshadweep. Absent in Sri Lanka.

2. (417) STRIATED BABBLER *Turdoides earlei* R Bulbul±: 20 cm. Distinguished from the Common Babbler by the fulvous (not white) throat and habitat difference. Tall grass, reeds and bushes. Flood plains of the Indus, Ganges, Brahmaputra and other N. Indian river systems.

3. (418) SLENDERBILLED BABBLER *Turdoides longirostris* R Bulbul+: 23 cm. Reddish brown above, lores and cheek whitish. Bill black, slender and curved. Ferruginous below except white chin and throat. White cheeks diagnostic. Long grass, usually near water: locally in terai, duars and lowlands. NE. India; Bangladesh.

4. (419) LARGE GREY BABBLER *Turdoides malcolmi* R Myna+: 28 cm. Pale grey brown with grey forehead. White outer feathers of long tail conspicuous in flight and when spread. Dry, open, sparsely scrubbed country, thorn jungle, and around cultivation in such. Continental and peninsular India.

5. (422) WHITEHEADED BABBLER *Turdoides affinis* R Bulbul+: 23 cm. Cream coloured crown contrasting with dark ear coverts and more musical call distinguishes it from other babblers. Secondary jungle, wooded compounds and around cultivation and villages. Southern peninsular India; Sri Lanka.

6. (420) RUFOUS BABBLER *Turdoides subrufus* R Myna+: 25 cm. Olive brown with rufous tinge. Grey forehead. Brightly ferruginous below. Tail slightly crossbarred. Wet-evergreen and moist-deciduous biotope: dense scrub intermixed with tall grass, and bamboo brakes, etc. W. Ghats complex from Mahabaleshwar south to Kerala and adjacent Tamil Nadu.

7. (421) JUNGLE BABBLER *Turdoides striatus* R Myna+: 25 cm. Earthy brown frowzy and untidy looking bird with a longish tail. Invariably in flocks. Deciduous forest, bamboo, cultivation and scrub jungle, etc. Subcontinent. Absent in Sri Lanka and Andaman and Nicobar Is.

8. (430) REDBILLED LEIOTHRIX *Liothrix lutea* R Sparrow-: 13 cm. Greyish olive. Throat, breast, yellow. Wings black with crimson edge. Tail forked. Bill scarlet. Scrub and secondary growth. Himalayas, NE. hill states.

9. (433) BLACKCAPPED SIBIA *Heterophasia capistrata* R Bulbul+: 21 cm. Black erectile crest, crown and ear coverts. Rufous on back, rump, tail. Grey on midback and wings. White wing patch conspicuous in flight. Cinnamon below. Evergreen or moist deciduous forests upto 3500 m. Himalayas.

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PLATE 54

1. (423) NECKLACED LAUGHING THRUSH *Garrulax moniligerus* R Myna+: 27 cm. No chin stripe, narrow necklace, white chin and throat. Black bill and yellowish brown legs and feet. Tropical evergreen and moist-deciduous forest and secondary jungle. E. Himalayas; NE. hill states; Bangladesh (Chittagong); up to *c.* 1000 m.

2. (424) BLACKGORGETED LAUGHING THRUSH *Garrulax pectoralis* R Myna±: 29 cm. Olive brown with a rufous nuchal collar. Wing white edged. White supercilium extending to collar. Broad white terminal band on tail seen in flight. Belly white. Sal and pine forest, secondary growth and bamboo jungle. E. Himalayas; NE. hill states; Bangladesh (Chittagong region); up to *c.* 1700 m.

3. (426) WYNAAD LAUGHING THRUSH *Garrulax delesserti* R Myna : 23 cm. Slaty grey and chestnut brown, ashy grey and chestnut below. Pure white throat and black eye mask. Throat yellow in the eastern Himalayan race. Dense evergreen undergrowth. Southern W. Ghats complex up to *c.* 1500 m. Foothills of E Bhutan and Arunachal Pradesh; NE. hill states; Bangladesh; up to *c.* 1800 m.

4. (425) WHITECRESTED LAUGHING THRUSH *Garrulax leucolophus* R Myna+: 28 cm. Olive brown bird with distinctive white crest, head, throat and breast. Prominent black eye mask and blackish tail. Wet evergreen forest with dense secondary scrub and bamboo jungle. Himalayas; NE. hill states; Bangladesh (Chittagong region); up to *c.* 2100 m.

5. (427) NILGIRI LAUGHING THRUSH *Garrulax cachinnans* R Myna-: 20 cm. Olive brown and rufous. Slaty crown and nape with prominent white supercilium. Separated from Kerala Laughing Thrush by rufous instead of grey breast. Dense undergrowth in sholas, hill station gardens, etc. Nilgiri Hills (S. India), above *c.* 1200 m.

6. (428) KERALA or JERDON'S LAUGHING THRUSH *Garrulax jerdoni* R Myna-: 20 cm. Similar to Nilgiri Laughing Thrush but throat and breast grey, not rufous. Belly rufous. Evergreen biotope: thickets, scrub, secondary jungle, edges of sholas, hill station gardens, etc. Southern W. Ghats complex from Goa border, Karnataka hills, Kerala and Tamil Nadu, above *c.* 1200 m.

PLATE 55

1. (434) BROWN FLYCATCHER *Muscicapa latirostris* RM Sparrow±: 14 cm. Ashy brown above, dirty white below. A conspicuous white ring round strikingly large eyes. Woodland, scrub, cultivation, etc. Himalayan foothills; continental India (hilly regions); W. Ghats complex from N. Kanara south; E. Ghats(?). *Winter*: Subcontinent; Sri Lanka; Andamans and Nicobars.

2. (435) BROWNBREASTED FLYCATCHER *Muscicapa muttui* R Sparrow-: 13 cm. Olive brown above with a brownish breast band highlighting the white throat. Ring round eye, and centre of belly white, legs yellow. Dense evergreen forest and jungle. *Summer*: NE. hill states above 1200 m. *Winter*: SW. India; Sri Lanka. Bangladesh (passage).

3. (436) RUFOUSTAILED FLYCATCHER *Muscicapa ruficauda* M Sparrow±: 14 cm. Drab brown. Conifer, deciduous and evergreen forest. *Summer*: W Himalayas, *c.* 2100-3600 m. *Winter*: SW. India. Kutch, Bharatpur and E. Ghats (passage).

4. (437) REDBREASTED FLYCATCHER *Muscicapa parva* M Sparrow-: 13 cm. Male has chin, throat and breast orange-chestnut. Female and young male ashy fulvous. Underparts white. White patches on basal half of black tail diagnostic. Groves, forest plantations, gardens with large trees, etc. Pakistan and India east to Bengal, south to Karnataka.

5. (438) WHITEBROWED BLUE FLYCATCHER *Muscicapa superciliaris* R Sparrow-: 10 cm. Male deep blue above with white supercilium. Centre of throat, breast, belly and patch on either side of tail white. White throat distinctive. Open deciduous forest, groves, gardens and orchards, up to *c.* 3200 m. *Summer*: Himalayas; NE. hill states. *Winter*: N. and C India.

6. (441) WHITEBELLIED BLUE FLYCATCHER *Muscicapa pallipes* R Sparrow±: 15 cm. Like Nilgiri Verditer but with white belly. Female pale brown above with chestnut tail. Belly white. Orange rufous throat and breast. Undergrowth in evergreen forest, sholas, *Strobilanthes* and cardamom ravines. W. Ghats complex from *c.* 19°N south. Foothills to *c.* 1500 m.

7. (439) BLACK-AND-ORANGE FLYCATCHER *Muscicapa nigrorufa* R Sparrow-: 13 cm. Name adequately descriptive of colour pattern. Dense evergreen sholas with ample undergrowth, edges of coffee plantations, and dank ravines. W. Ghats complex from Wynaad south.

8. (440) RUFOUSBELLIED NILTAVA *Muscicapa sundara* R Sparrow-: 10 cm. Forehead black, crown, shoulders, neck ultramarine blue, sides of head and back purplish blue. Below rufous orange. Female olive or fulvous brown with blue patch on neck. White patch on throat. Subalpine conifer and rhododendron scrub. Himalayas from Tehri Garhwal east, seasonally between *c.* 220 and 4200 m; NE. hill states.

9. (442) BROOKS'S FLYCATCHER *Muscicapa poliogenys* R Sparrow-: 14 cm. Olive brown above, greyer on crown and sides of head. A pale eye ring. Throat white or buff. Tail rufous brown. Tropical evergreen and moist-deciduous forest. E. Himalayas; NE. hill states (up to *c.* 1500 m); E. Ghats complex in Orissa and Andhra Pradesh (up to *c.* 1000 m).

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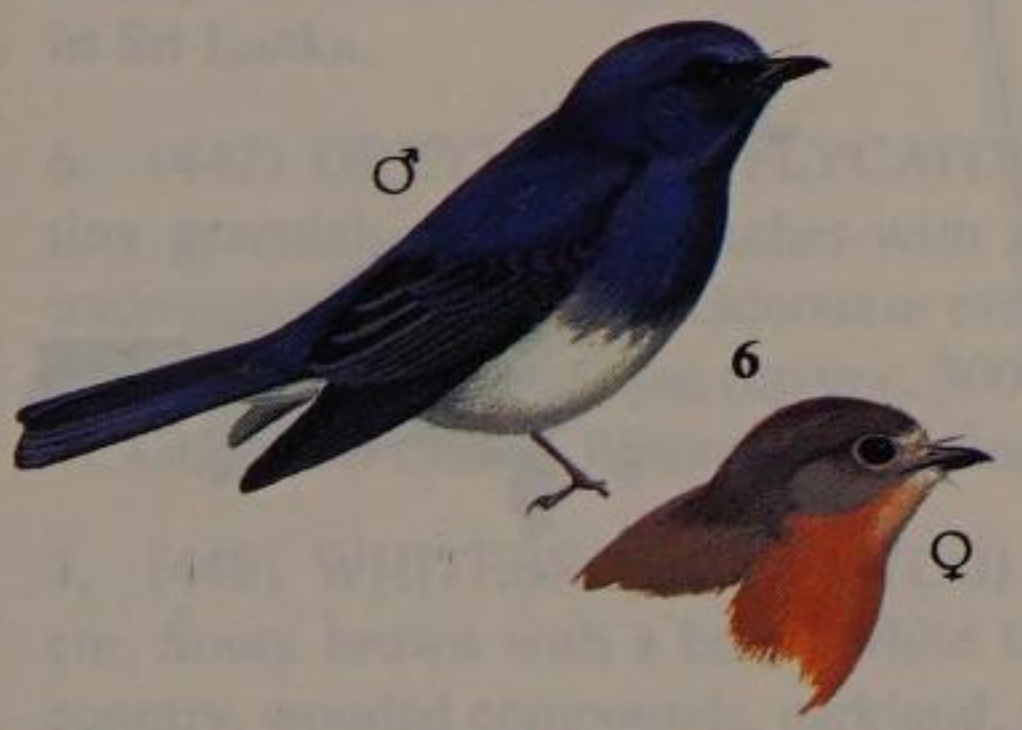

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PLATE 56

1. (443) BLUETHROATED FLYCATCHER *Muscicapa rubeculoides* R Sparrow-: 14 cm. Blue overall, dark blue throat, rufous breast, and white belly identifies male. Female olive brown tinged with rufous on rump. Throat buff. Moist-deciduous or evergreen biotope: forest with ample undergrowth, secondary or bamboo jungle. *Summer*: Himalayan foothills; NE. hill states; Bangladesh. *Winter*: continental and peninsular India; Sri Lanka. Seasonally, foothills to *c.* 2100 m.

2. (444) TICKELL'S BLUE FLYCATCHER *Muscicapa tickelliae* R Sparrow-: 14 cm. Blue above with bright azure forehead eyebrows and shoulder patches. Throat and breast pale rust fading to white on abdomen. Moist-deciduous or evergreen biotope: scrub and bamboo jungle, groves and wooded gardens. N. and peninsular India, excepting NW. arid parts; Bangladesh; Sri Lanka.

3. (450) PARADISE FLYCATCHER *Terpsiphone paradisi* RM Bulbul±: 20 cm. Adult male with metallic black crested head, silvery white body and tail streamers. Female chestnut above and whitish below. Young male similar to female but with chestnut streamers. Male (with tail streamers) overall 50 cm. Well-watered and shady forest, plantations, groves and gardens. Subcontinent. Andamans and Nicobars.

4. (446) NILGIRI VERDITER FLYCATCHER *Muscicapa albicaudata* R Sparrow±: 15 cm. Differs from verditer flycatcher in being Indigo blue than bluish green. A white patch at base of tail. Sholas, forest glades, coffee and cardamom plantations, etc. Southern W. Ghats complex.

5. (445) VERDITER FLYCATCHER *Muscicapa thalassina* R Sparrow±: 15 cm. Female differs from the blue green male in being duller. Deciduous, evergreen or light conifer forest. *Summer*: Himalayas; NE. hill states; *c.* 1200-3000 m. *Winter*: Subcontinent. Absent in Sri Lanka.

6. (447) GREYHEADED FLYCATCHER *Culicicapa ceylonensis* R Sparrow-: 9 cm. A tiny greenish yellow flycatcher with ashy grey head, neck and breast. Bright yellow underparts. Sexes alike. Deciduous or evergreen forest, sholas, secondary and mixed bamboo forest. *Summer*: Himalayas (up to *c.* 3000 m): NE. hill states; Bangladesh; C. India; E. and W. Ghats; Sri Lanka. *Winter*: Subcontinent.

7. (448) WHITEBROWED FANTAIL FLYCATCHER *Rhipidura aureola* R Bulbul-: 17 cm. Sooty brown with a broad white forehead, white underparts and tail tip. Dry open country, wooded compounds, parkland, scrub and bamboo jungle. Subcontinent excepting NE. parts and Andaman and Nicobar Is.

8. (449) WHITESPOTTED FANTAIL FLYCATCHER *Rhipidura albicollis* R Bulbul-: 17 cm. Smoky brown with white spotted breast and flanks. Shady places in forest, well-wooded country, gardens, groves and secondary scrub. Himalayas; NE. hill states (up to *c.* 2700 m); peninsular India.

9. (451) BLACKNAPED BLUE FLYCATCHER *Hypothymis azurea* R Sparrow±: 16 cm. Bright blue above with whitish abdomen. Velvety black on nape and black gorget across foreneck. Female browner, grey and white below. No black patches. Evergreen and moist-deciduous biotope: forest and plantations, mixed bamboo jungle, etc. Himalayan foothills; continental and peninsular India; Andaman and Nicobar Is.; Bangladesh; Sri Lanka.

PLATE 57

1. (452) STREAKED FANTAIL WARBLER *Cisticola juncidis* R Sparrow-: 10 cm. Small dark streaked fulvous brown bird, whitish below, white tipped short tail flicked open like a fan. Tall grass, reed-beds, ricefields, dry grassland, etc. Subcontinent. Absent in Andaman Is.

2. (453) FRANKLIN'S WREN-WARBLER *Prinia hodgsonii* R Sparrow-: 11 cm. Dusky grey with rust brown wings. Below whitish. Tail grey tipped black white. Scrub and grass jungle, undergrowth in deciduous forest, mangrove swamps, reed-beds, etc. Subcontinent. Absent in Andaman and Nicobar Is.

3. (454) RUFOUSFRONTED WREN-WARBLER *Prinia buchanani* R Sparrow-: 12 cm. Forehead and crown rufous. Lores and narrow supercilium white, tail dark brown with broad white tips except central pair and white tip conspicuous while landing. Arid scrub and grass jungle in semi-desert. Pakistan and N. and C. India.

4. (458) STREAKED WREN-WARBLER *Prinia gracilis* R Sparrow-: 13 cm. Drab brown lores and round eye white. Tail long graduated, faintly cross barred, white tipped. Tamarisk, grass and scrub jungle in sandy, semi-desert country. Baluchistan; NE. Pakistan; NE. India, Himalayan foothills, and Gangetic plain east to Brahmaputra river. Bangladesh.

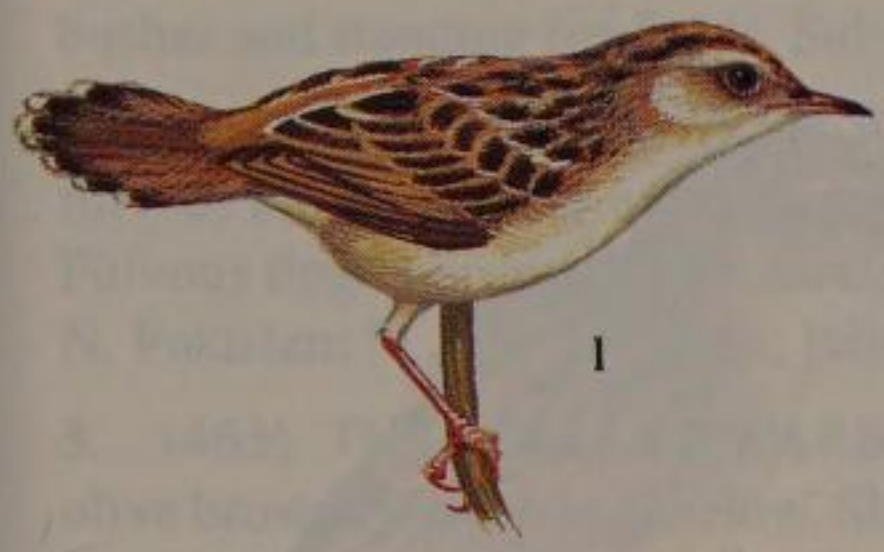
5. (455) PLAIN WREN-WARBLER *Prinia subflava* R Sparrow-: 13 cm. Similar to Ashy Wren Warbler but rufous earthy brown above and no spots on the tail. Mixed thorn scrub and tall grass jungle, secondary growth, cultivation, etc. Subcontinent. Absent in Andaman and Nicobar Is.

6. (456) ASHY WREN-WARBLER *Prinia socialis* R Sparrow-: 13 cm. Ashy slate above, fulvous white below. Tail long, graduated black and white tipped. *Sarpat* grass, reeds, scrub and grass around cultivation, bracken-covered slopes, gardens. Peninsular India south of Narmada river and S. Bihar; Sri Lanka.

7. (457) JUNGLE WREN-WARBLER *Prinia sylvatica* R Sparrow±: 15 cm. Earthy brown with long, graduated tail, white tipped with outermost pair almost entirely white on inner web. Low bush jungle mixed with coarse grass. Subcontinent from Kangra east to NW. Bangladesh. Absent in Andaman and Nicobar Is.

8. (459) TAILOR BIRD *Orthotomus sutorius* R Sparrow-: 13 cm. A jaunty little olive green bird white underneath, rusty crown and two elongated pinpointed feathers in tail. Scrub country near cultivation, gardens, wooded compounds and deciduous jungle. Subcontinent. Absent in Andaman and Nicobar Is.

9. (460) PALLAS'S GRASSHOPPER WARBLER *Locustella certhiola* M Sparrow-: 13 cm. Crown streaked grey and dark brown. Conspicuous pale supercilium. Tail rounded, tipped white, blackish below. Swamps, reed-beds and ricefields. N. E. W. and C India; Bangladesh; Sri Lanka; Andaman and Nicobar Is.



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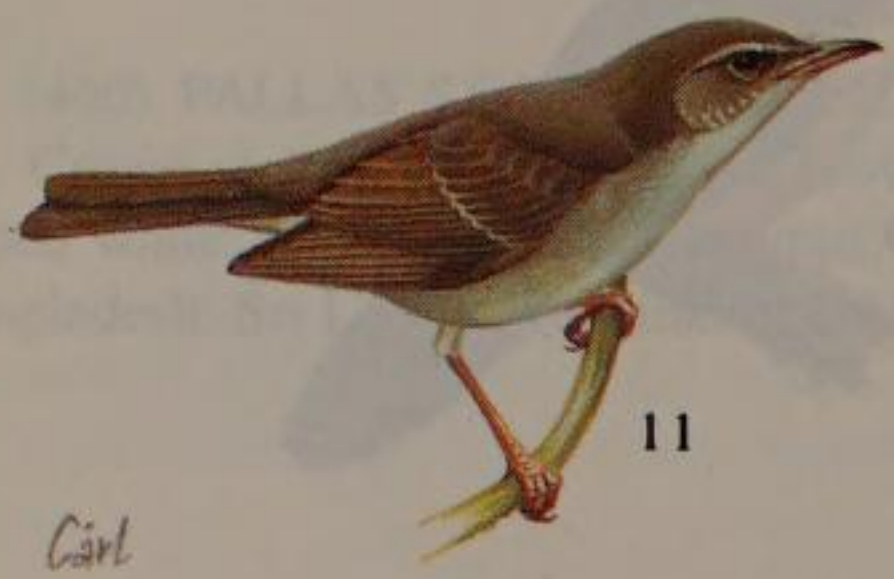

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PLATE 58

1. (461) BRISTLED GRASS WARBLER *Chaetornis striatus* R Sparrow+: 20 cm. Fulvous brown boldly streaked with dark brown on back. Cream buff below. Tail appears barred and is tipped white subtipped black. Sometimes a dark necklace. Coarse grassland intermixed with bushes and standing ricefields. Subcontinent. Absent in Sri Lanka; Andaman and Nicobar Is.

2. (462) STRIATED MARSH WARBLER *Megalurus palustris* R Bulbul+: 25 cm. Large fulvous brown warbler with streaked head, black stripes on back and wings. Pale supercilium. Fulvous tinged brown below. Grass and reeds in marshes, tall grass and scrub in cultivation. N. Pakistan; N. and NE. India; Bangladesh.

3. (463) THICKBILLED WARBLER *Acrocephalus aedon* M Bulbul±: 20 cm. Plain fulvous olive brown, whitish buff below. Short bill and absence of supercilium separates it from Great Reed Warbler. Reeds and bushes in marshy places, tall grass and weeds in abandoned clearings, tea and coffee plantations. NE. and peninsular India; also Gujarat. Rajasthan; Bangladesh; Andaman and Nicobar Is.

4. (464) INDIAN GREAT REED WARBLER *Acrocephalus stentoreus* R Bulbul±: 19 cm. Large olive brown warbler with conspicuous white supercilium and throat. Reed-beds and shrubs around lakes, jheels, ponds, canals, etc. Subcontinent; Sri Lanka; Andaman Is. Breeding abundantly in Kashmir valley, *c.* 1800 m. Also in Bengal Salt Lakes; Kerala.

5. (465) BLYTH'S REED WARBLER *Acrocephalus dumetorum* RM Sparrow-: 14 cm. A smaller replica of the Great Reed Warbler with white supercilium and throat. Olive brown above, buff below. Bushes, hedges, orchards, bamboo clumps and grain fields, mainly in deciduous biotope. *Breeding*: N. Baluchistan. *Winter*: Subcontinent.

6. (466) PADDYFIELD WARBLER *Acrocephalus agricola* RM Sparrow-: 13 cm. Rufous brown above with brighter rump. Pale indistinct supercilium. Throat whitish, ochraceous buff below. Reed-beds, elephant grass, sugarcane and wet rice cultivation. *Breeding*: N. Baluchistan. *Winter*: Subcontinent. Absent in Sri Lanka.

7. (467) BOOTED WARBLER *Hippolais caligata* RM Sparrow-: 12 cm. Pale olive brown above. Short whitish supercilium. Buffish white below. Deciduous scrub jungle. *Breeding*: Throughout Baluchistan; NWFP; Sind. *Winter*: Subcontinent; Sri Lanka.

8. (468) ORPHEAN WARBLER *Sylvia hortensis* M Sparrow±: 15 cm. Slaty grey above, buffy white below with a black skull cap covering eyes and ear coverts. Female's cap dark grey, tail black white tipped, outer feathers largely white and conspicuous in flight. Shrubs on stony slopes and semi-desert. *Summer*: Baluchistan and NWFP. *Winter*: Pakistan; India, from the Indus east and south to Bihar, Karnataka and Tamil Nadu.

9. (469) LESSER WHITETHROAT *Sylvia curruca* M Sparrow-: 12 cm. Earthy brown above, whitish below, pure white on throat. Grey cap on head contrasting with brown back and accentuating white throat. Scrub jungle and bushes in semi-desert stony country. *Breeding* (race *althaea*): N. Baluchistan; NWFP to Ladakh and Kashmir. *Winter*: (all spp.): Semi-desert and drier areas of the Subcontinent.

10. (471) DULL GREEN LEAF WARBLER *Phylloscopus trochiloides* M Sparrow-: 10 cm. Single faint wing bar, dull greenish above with yellowish supercilium and dark eye streak. Gardens, wooded compounds, groves and open deciduous forest. *Summer*: Himalayas; NE. hill states; *c.* 2700-4200 m. *Winter*: Subcontinent; Andamans; Sri Lanka.

11. (470) LARGEBILLED LEAF WARBLER *Phylloscopus magnirostris* M Sparrow-: 12 cm. Largest of Indian Leaf Warblers. Faint single wing bar. Brownish olive with prominent yellowish supercilium and dark eye streak. Deciduous or evergreen forest. *Summer*: Himalayas, *c.* 1800-3600 m. *Winter*: NE. and peninsular India; Sri Lanka; Andaman Is.

PLATE 59

1. (473) RUBYTHROAT *Erithacus pectoralis* RM Sparrow±: 15 cm. Chin and throat scarlet. Sides of neck and breast black. Female grey brown with white eye ring. Dwarf rhododendron, juniper and other scrub, grassy hillsides, marshes and cultivation. *Summer*: Himalayas, *Winter*: Duars and lowland: N. and NE. India. One record each from Uttar Pradesh and Karnataka. Seasonally from the foothills up to *c.* 4500 m. Bangladesh.

2. (474) BLUE CHAT *Erithacus brunneus* RM Sparrow±: 15 cm. Male slaty blue above with a conspicuous white supercilium, black lores and cheek. Flanks, throat and breast chestnut. Female olive brown above whitish below. Evergreen biotope: dense undergrowth in open oak, conifer or shola forest. *Summer*: Himalayas; NE. hill states; *c.* 1600-3300 m. *Winter*: E. Himalayan foothills; SW. India (W. Ghats complex). E. Ghats, Karnataka and Tamil Nadu (passage). Sri Lanka.

3. (472) BLUETHROAT *Erithacus svecicus* RM Sparrow±: 15 cm. Adult male has a brilliant blue throat with a white or chestnut patch in the middle. Female and young male with a mere gorget of brown spots on breast. Tail black tipped orange chestnut. Sugarcane, cotton fields, grass jungle, reeds, bushes near water, gardens and fallow fields. *Summer*: Gilgit, Baltistan Ladakh, N. Kashmir and Spiti. *Winter*: Subcontinent, Andamans; Sri Lanka.

4. (475) MAGPIE-ROBIN *Copsychus saularis* R Bulbul±: 20 cm. Male black and white. Female black replaced by grey or brown. Dry- and moist-deciduous forest, secondary jungle, and near human habitations. Subcontinent, Andamans; Sri Lanka.

5. (476) SHAMA *Copsychus malabaricus* R Bulbul±, with long tail: overall 25 cm. Black above, chestnut below. White patch at root of black and white graduated tail diagnostic. Dry- and moist-deciduous secondary forest, hilly bamboo jungle, etc. Himalayas from Kumaon east; duars to *c.* 500 m. Subcontinent; Sri Lanka.

6. (477) BLACK REDSTART *Phoenicurus ochruros* RM Sparrow±: 15 cm. Black and orange chestnut bird with constantly shivering orange chestnut tail. Stony, sparsely scrubbed broken country and near cultivation and villages. *Breeding* Himalayas, *c.* 2400-5200 m. *Winter*: Subcontinent. Absent in Sri Lanka and Andaman and Nicobar Is.

7. (478) BROWN ROCK CHAT *Cercomela fusca* R Sparrow+: 17 cm. Plain brown above rufous brown below with darker wings and blackish tail. No chestnut patch under tail. Rocky hills, quarries, ruins, bungalows within town limits and suburbs. NW, N. and C. India; locally up to *c.* 1300 m.

8. (479) COLLARED BUSH CHAT or STONE CHAT *Saxicola torquata* RM Sparrow-: 13 cm. Male with black head, orange brown breast and white collar, white on shoulders and root of tail. Female dark streaked ventrally otherwise similar to Pied Bush Chat female. Dry, scrub-covered hillsides, wasteland, fallow fields, tamarisk jungle, etc. Subcontinent excepting extreme southern peninsula Sri Lanka; and Andamans.

9. (480) WHITETAILED BUSH or STONE CHAT *Saxicola leucura* R Sparrow-: 13 cm. Black above except white rump and tail. Throat black, breast rufous, belly buff. Female rufous brown streaked with dark brown. High grass, reeds and tamarisks, especially near large rivers. Sub-Himalayan terai and flood plains of the Indus, Ganges and Brahmaputra river systems; Bangladesh.

10. (481) PIED BUSH CHAT *Saxicola caprata* R Sparrow-: 13 cm. Male black with white on rump, abdomen and conspicuously on wings. Female earth brown with rust coloured rump. Cultivated fields, sparsely scrubbed hillsides, tamarisk, reeds, and coarse grass near water and cultivation. Subcontinent. Absent in Andaman and Nicobar Is.

11. (482) JERDON'S BUSH CHAT *Saxicola jerdoni* R Sparrow±: 15 cm. Male entirely black above and white below. Female brown tinged with rufous. Throat white. Vast expanses of elephant grass. NE. India; Bangladesh. Foothills to *c.* 700 m.

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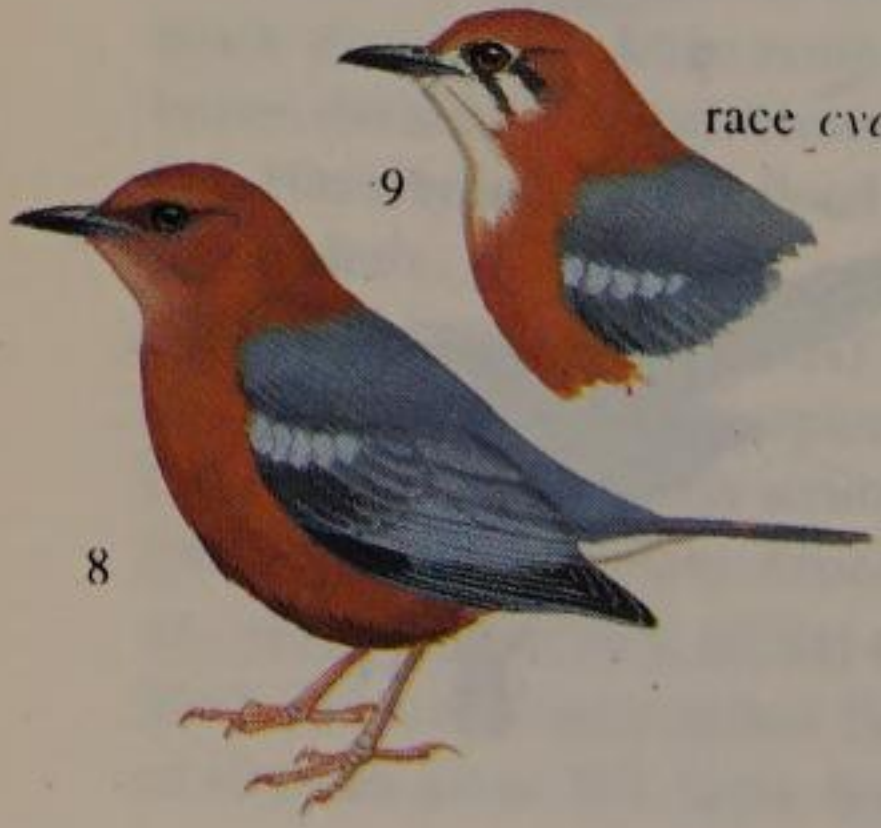

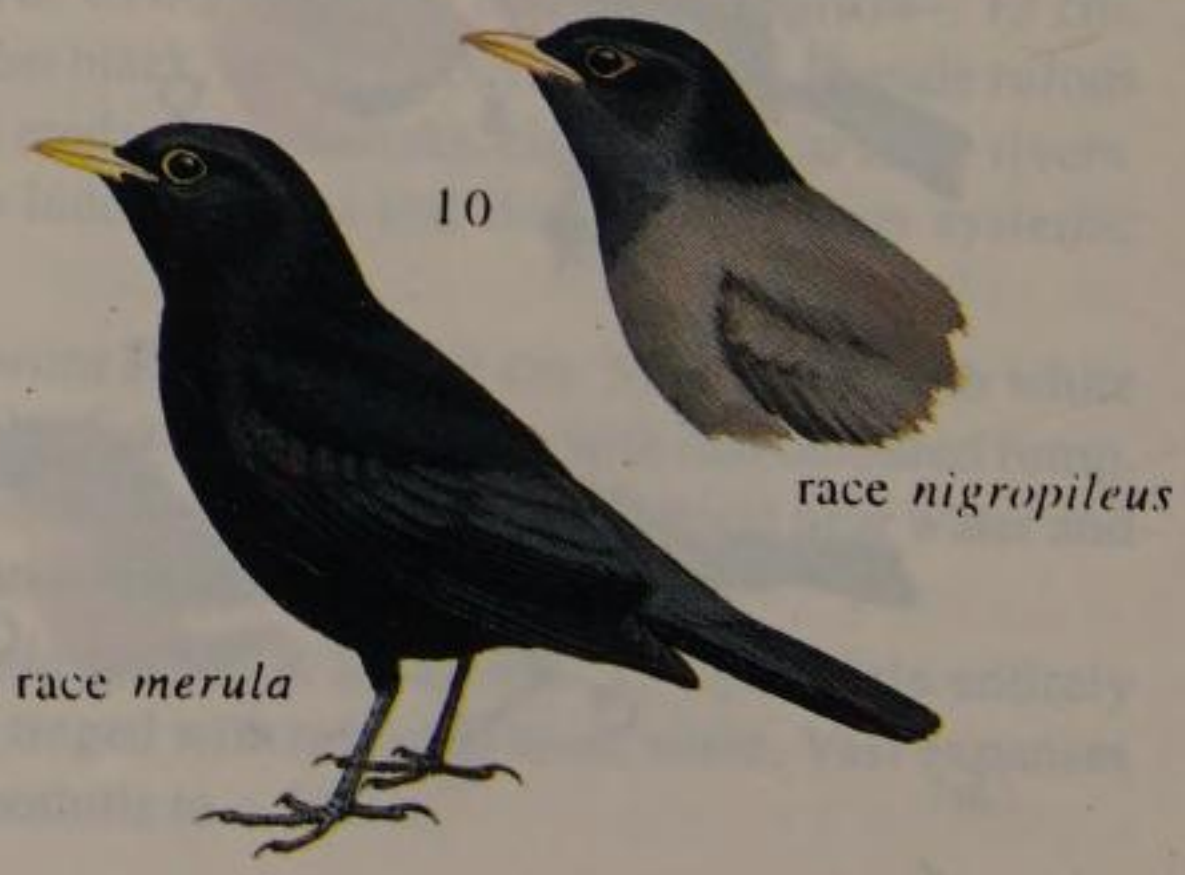

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PLATE 60

1. (483) DESERT WHEATEAR *Oenanthe deserti* RM Sparrow±: 15 cm. Crown and back sandy buff, pale supercilium. Basal half of tail creamy white otherwise black. Wings blackish brown. Throat and sides of head black. Buff white below. Arid, semi-desert broken tracts, and canal-irrigated desert cultivation. *Breeding*: N Baluchistan, Kashmir east to W Nepal. *Winter*: Pakistan, N. and C. and peninsular India; Sri Lanka.

2. (484) ISABELLINE CHAT *Onenanthe isabellina* RM. Sparrow. Resembles Desert Wheatear but has the base of tail pure white. Pale eye ring. Sandy semi-desert and wasteland. Winters in NW. India east to Sehore south to Pune.

3. (485) INDIAN ROBIN *Saxicoloides fulicata* R Sparrow±: 16 cm. Male black with white wing patch, rusty red under root of tail. Hen ashy brown, no wing patch. Arid and stony country, semi-desert with scattered bushes, cultivations, and around habitations. Subcontinent; Sri Lanka.

4. (486) BLUEHEADED ROCK THRUSH *Monticola cinclorhynchus* RM Bulbul-: 17 cm. Upper parts blue black. Head, chin and throat blue. Chestnut below. Conspicuous white patch on wing. Female brown with barrings and scaly patterns. *Summer* (breeding): Open forest and rocky grass-covered slopes. Himalayas; NE. hill states. *Winter*: Evergreen and moist-deciduous secondary jungle. W. Ghats complex from the Tapti river south; and E. Ghats, Assam hills.

5. (487) BLUE ROCK THRUSH *Monticola solitarius* RM Bulbul+: 23 cm. Male indigo blue. Female grey brown above whitish below barred with dark brown. A wing bar. Barren rocky country, cliffs and rocks along seashore, quarries, old forts and buildings. *Summer* (breeding): Baluchistan; W Himalayas, 1500-3000 m. *Winter*: From Himalayan foothills south throughout Subcontinent including Sri Lanka, Andamans and Nicobars.

6. (488) MALABAR WHISTLING THRUSH *Myiophonus horsfieldii* R Myna+: 25 cm. Blue black with glossy patches of cobalt blue on forehead and shoulders. Legs and bill black. Sexes alike. Waterfalls and swift rocky hill streams in shady evergreen jungle. The hills of W. and peninsular India including the E. & W. Ghats complex. Foothills to *c.* 2200 m.

7. (489) HIMALAYAN WHISTLING THRUSH *Myiophonus caeruleus* R Pigeon±: 23 cm. Dark purple blue, spotted with glistening blue. White spots on wing coverts. Bill yellow. Rivers and torrents in heavy forest, wooded ravines and gorges. N. Baluchistan; Himalayas; NE. hill states. Foothills to *c.* 2400 m.

8. (490) ORANGEHEADED GROUND THRUSH *Zoothera citrina* RM Myna: 21 cm. Damp forest with plentiful uMndergrowth, mixed secondary and bamboo jungle, and groves near habitations. *Summer* (breeding): Himalayas NE. India including Bangladesh; foothills to *c.* 2300 m. Peninsular Indian hills. *Winter*: the Subcontinent locally; Sri Lanka; Andaman and Nicobar Is.

9. (491) WHITETHROATED GROUND THRUSH *Zoothera citrina cyanotus* R Myna: 21 cm. Head neck and underparts yellowish brown. Rest of upper parts slaty blue. A large white patch on wing conspicuous in flight. Throat and sides of head white obliquely banded. Forests both deciduous and evergreen. Eastern Gujarat, M.P., Orissa, Tamil Nadu, Kerala. Not Sri Lanka.

10. (492) BLACKBIRD *Turdus merula* RM Myna±: 25-27 cm. Plain grey brown with black cap, orange yellow bill, legs and a ring round eye. Female paler with grey cap. Moist deciduous and evergreen forest, sholas, wooded ravines, alpine meadows, etc. Baluchistan; Himalayas; *c.* 3000-4500 m (breeding). Subcontinent: hills (summer), plains (winter).

PLATE 61

1. (493) GREY TIT *Parus major* R Sparrow-: 13 cm. Glossy uncrested black head, glistening white cheek patches. Grey back whitish below with a broad black central band. Lightly wooded country. Subcontinent; Sri Lanka.

2. (494) WHITEWINGED BLACK TIT *Parus nuchalis* R Sparrow-: 13 cm. Glossy blue black above with white patch on nape, white on wings and outer tail feathers. A broad black band from chin to vent. Hummocky semi-desert country. Kutch, N. Gujarat, Rajasthan. Disjunctly in E. Ghats and Karnataka.

3. (495) YELLOWCHEEKED TIT *Parus xanthogenys* R Sparrow±: 14 cm. A black and yellow tit with prominent black pointed crest. Black band down centre of yellow underparts. Himalayan and peninsular forests. Subcontinent.

4. (497) VELVETFRONTED NUTHATCH *Sitta frontalis* R Sparrow-: 10 cm. Purplish blue above, grey black below. Forehead velvety jet black. Female lacks the black stripes above and behind eye. Moist-deciduous and evergreen hilly biotope. Lower Himalayas; practically all Subcontinent excepting NW.; Sri Lanka.

5. (501) INDIAN TREE PIPIT *Anthus hodgsoni* RM Sparrow±: 15 cm. Greenish brown finely streaked with darker brown. Supercilium, double wing bar and outer retrices white. Below whitish to buff boldly streaked on flanks and breast with dark brown. Grassy slopes, rocky ground and glades in open forest. *Summer*: Subalpine Himalayas from *c.* 2700 to timber-line. *Winter*: Continental and peninsular India; Bangladesh; Sri Lanka.

6. (498) SPOTTED GREY CREEPER *Salpornis spilonotus* R Sparrow-: 13 cm. Beak long and curved. Dark brown above spotted with white, supercilium white. Tail barred brown and white. Open deciduous forest and groves. C. and peninsular India; capricious distribution.

7. (496) CHESTNUTBELLIED NUTHATCH *Sitta castanea* R Sparrow-: 12 cm. Short-tailed but bill relatively long. Slaty blue above, dark chestnut below. Female paler. Deciduous forest and light woods. Lower Himalayas, up to *c.* 1800 m; practically throughout the Subcontinent.

8. (499) PADDYFIELD PIPIT *Anthus novaeseelandiae* R Sparrow+: 15 cm. Coloured like the female house sparrow. Streaked with brown on breast. A slim bird with slender bill and long tail with white outermost feathers. Grassland, stubble fields, fallows and marshy ground. Subcontinent; Sri Lanka.

9. (500) BROWN ROCK PIPIT *Anthus similis* RM Bulbul±: 20 cm. A large, pale brown, long tailed pipit. Buff supercilium. Streaks above. Throat white as are the outer edges of tail. Grassy slopes and plains, sparsely scrubbed country, fallow land, sand dunes, etc. Subcontinent.

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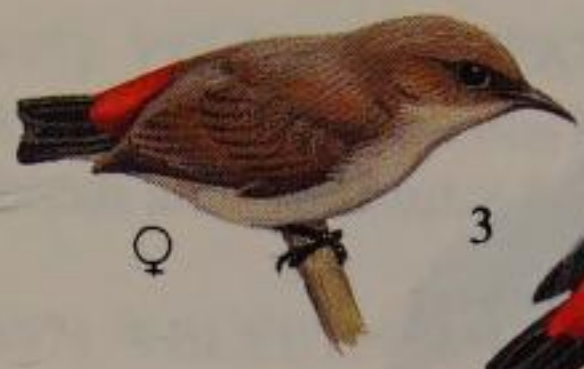

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PLATE 62

1. (508) THICKBILLED FLOWERPECKER *Dicaeum agile* R Sparrow-: 9 cm. Smaller than sunbird. Ashy olive brown above. Greyish buffy white below. Stout bluish finch-like bill distinctive. Dry to moist-deciduous or semi-evergreen biotope: on flowering or fruiting trees and shrubs in forest and cultivated country. Sub-continent; Sri Lanka.

2. (509) TICKELL'S FLOWERPECKER *Dicaeum erythrorhynchos* R Sparrow-: 8 cm. A diminutive olive brown bird with greyish white underparts with short slightly curved *flesh coloured* bill. Moist-deciduous biotope: forest plantations, groves, orchards and scrub jungle. Subcontinent excepting desert parts; Sri Lanka.

3. (511) SCARLETBACKED FLOWERPECKER *Dicaeum cruentatum* R Sparrow-: 7 cm. Male has the crown, back and rump crimson, sides of heads, throat and breast black wings and tail glossy black. Female olive. Open forest groves and orchards. E. Himalayas, south through Assam and Bengal; up to *c.* 1400 m. Bangladesh.

4. (510) PLAINCOLOURED FLOWERPECKER *Dicaeum concolor* R Sparrow-: 8 cm. Olive green above. Black bill, white shoulder patch on closed wing. Deciduous and mixed deciduous-evergreen forest and groves. E. Himalayas; NE. hill states; Bangladesh; up to *c.* 1800 m; W. Ghats complex from Mahabaleshwar south; Andaman Is.

5. (512) FIREBREASTED FLOWERPECKER *Dicaeum ignipectus* R Sparrow-: 7 cm. Greenish black above, creamy buff below with a scarlet patch on breast. Female grass green above and contrasting yellow rump. Tall forest, secondary growth and orchards, etc. Himalayas; NE. hill states. Seasonally *c.* 600-2700 m.

6. (502) FOREST WAGTAIL *Motacilla indica* RM Sparrow+: 17 cm. Olive brown above with pale supercilium and eye ring. Blackish brown collar on neck and a second interrupted one on breast taken with the double wing bands diagnostic. Evergreen or moist-deciduous biotope: forest, coffee plantations, mixed bamboo jungle, etc. *Breeding*: N. Cachar district, Assam. *Winter*: Nepal, Sikkim, NE. India; Bangladesh; E. and W. Ghats complex; Sri Lanka.

7. (503) YELLOW WAGTAIL *Motacilla flava* RM Sparrow±, with longer tail: 17 cm. Yellowish or olive green above, yellowish below. Constantly wags its tail as it runs about wetlands. Pastureland, wet paddy stubbles, etc. *Breeding*: Ladakh; N. Kashmir(?). *Winter*: Subcontinent; also Andamans, Nicobars; Sri Lanka.

8. (504) YELLOWHEADED WAGTAIL *Motacilla citreola* RM Sparrow±, with longer tail: 17 cm. In summer dress has bright yellow head. Separated at all times from other wagtails by the broad yellow supercilium and yellow forehead. Marshes, irrigated ricefields, etc. *Summer*: N. Baluchistan; NWFP, east through Baltistan, Gilgit, Kashmir, Ladakh, Lahul, Spiti; between *c.*1500 and 4600 m. *Winter*: Subcontinent. Absent in Andaman and Nicobar Is.

9. (505) GREY WAGTAIL *Motacilla cinerea* M Sparrow±, with longer tail: 17 cm. Chiefly grey and yellow. In summer chin, throat and upper breast black in male. Along clear mountain streams with rocky banks and boulders. *Summer*: From N. Baluchistan to Chitral, east through Baltistan, Gilgit, Ladakh and Kashmir to Nepal; between *c.* 1800 and 4300 m. *Winter*: Himalayan foothills, south throughout the Subcontinent; Andamans, Nicobars; Sri Lanka; Maldives.

10. (506) WHITE WAGTAIL *Motacilla alba* RM Bulbul-: 18 cm. In non-breeding winter plumage the black bib is reduced or wanting, the chin and throat white like the underparts. Open country in the vicinity of watercourses, reservoirs, rice and cultivation, lawns and playing fields. Subcontinent; Andamans. Vagrant or absent in Sri Lanka.

11. (507) LARGE PIED WAGTAIL *Motacilla maderaspatensis* R Bulbul±: 21 cm. A large black and white wagtail with a prominent white eye brow. Female duller and browner. Watercourses, rocky streams, reservoirs and pools. Continental and peninsular India.

PLATE 63

1. (513) PURPLERUMPED SUNBIRD *Nectarinia zeylonica* R Sparrow-: 10 cm. Above metallic crimson, green and purple, yellow below. Rump metallic bluish purple. Female olive brown above, greyish white chin, lower parts yellow. Scrub, light secondary jungle, dry cultivated country, gardens S. Bengal; peninsular India; Bangladesh; Sri Lanka.

2. (514) SMALL SUNBIRD *Nectarinia minima* R Sparrow-: 8 cm. Deep crimson brown or maroon above, no shoulder patch. Broad collar covering breast. Belly yellow with bright yellow tufts. Forest, sholas, gardens, flowering trees and bushes in hilly evergreen biotope. W. Ghats complex from about Nasik south; normally between 300 and 2000 m.

3. (515) MAROONBREASTED or LOTEN'S SUNBIRD *Nectarinia lotenia* R Sparrow-: 13 cm. Male black above with metallic green and purple sheen. A dark crimson or maroon band across breast. Bright yellow tufts on sides of breast. The long curved bill distinctive. Female olive with blue black white tipped tail. Moist-deciduous biotope: well-wooded, open country, gardens and cultivation. Southern peninsular India; Sri Lanka.

4. (517) YELLOWBACKED SUNBIRD *Aethopyga siparaja* R Sparrow-; Male 15 cm; Female 10 cm. Brilliantly coloured purple, green and crimson sunbird with long pointed metallic green tail in the male. Female dusky olive green. Dense evergreen and moist-deciduous open forest and scrub jungle, gardens, orchards, groves, etc. Himalayan foothills from Kangra east to Sikkim; Bangladesh; continental and NE. India; W. Ghats complex from the Narmada river south; Nicobar Is.

5. (516) PURPLE SUNBIRD *Nectarinia asiatica* R Sparrow-: 10 cm. Breeding male metallic dark blue and purple appearing all black at a distance. Non-breeding male resembles female in being olive brown but has a black stripe down middle of chest. Light deciduous or dry thorn forest, cultivation, gardens and compounds. Subcontinent; Sri Lanka. Absent in Andaman and Nicobar Is.

6. (518) LITTLE SPIDERHUNTER *Arachnothera longirostris* R Sparrow-: 14 cm. Olive and yellow bird with very long, stout, curved bill, tail dark brown tipped white. Moist-deciduous and evergreen forest, secondary growth, heavy jungle and sholas. E. Himalayan foothills; NE. hill states. Patchily also in W. and E. Ghat complexes; Orissa. Up to *c.* 1800 m. Bangladesh.

7. (519) STREAKED SPIDERHUNTER *Arachnothera magna* R Sparrow+: 17 cm. Boldly streaked yellowish olive bird with a distinctive long curved black bill and yellow legs. Tail with buff spots and subterminal band. Evergreen biotope: dense forest and abandoned cultivation clearings overgrown by wild banana stands. E. Himalayas; NE. hill states; Bangladesh; up to *c.* 2200 m.

8. (520) WHITE-EYE *Zosterops palpebrosa* R Sparrow-: 10 cm. A tiny square tailed, greenish yellow and bright yellow bird with a conspicuous white ring round eye. Forest, groves, gardens, orchards and mangrove. Subcontinent excepting desert parts; Andamans and Nicobar Is. Sri Lanka.

9. (522) YELLOWTHROATED SPARROW *Petronia xanthocollis* R Sparrow-: 14 cm. Pale earth brown sparrow. Conspicuous chestnut shoulder patch, two whitish wing bars and a lemon yellow patch on throat which is absent in the female. Dry-deciduous forest, scrub, thorn jungle, groves, cultivation, and oases with date palms. Subcontinent; Sri Lanka (rare).

10. (521) HOUSE SPARROW *Passer domesticus* R Bulbul-: 15 cm. Male with grey crown, black around eyes. Chestnut on back. White shoulder patch on rufous wing. Tail dark brown. Female ashy grey brown above. Fulvous ashy white below. Pale fulvous supercilium. An ubiquitous commensal of man in cities, suburbs, villages, etc. Subcontinent; Sri Lanka. Absent in Nicobar Is; Andamans (introduced).

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PLATE 64

1. (523) BAYA WEAVER BIRD *Ploceus philippinus* R Sparrow±: 15 cm. Breeding male has bright yellow crown. Grassland and secondary scrub dotted with acacias and palm trees, etc. Subcontinent; Sri Lanka.

2. (525) BLACKBREASTED WEAVER BIRD *Ploceus benghalensis* R Sparrow±: 15 cm. Breeding male with golden yellow crown, white throat. Swampy reed-beds in cultivated lowlands. N. and NE. and continental India; Bangladesh.

3. (526) STREAKED WEAVER BIRD *Ploceus manyar* R Sparrow±: 15 cm. Breast fulvous boldly streaked with black in both sexes at all seasons. Swampy reedbeds in cultivated lowland. Pakistan; N. and NE. India; Bangladesh; capriciously in the Peninsula; Sri Lanka.

4. (524) FINN'S BAYA *Ploceus megarhynchus* R Sparrow+: 16 cm. Breeding male with head nape, rump and below golden yellow. Kumaon terai (below Naini Tal) east to Bengal and Assam.

5. (527) RED MUNIA or AVADAVAT *Estrilda amandava* R Sparrow-: 10 cm. Bill red. Rump crimson. Breeding male largely crimson dotted with white. Swampy reed-grassland. Subcontinent. Not in Andamans, Nicobars and Sri Lanka.

6. (528) GREEN MUNIA *Estrilda formosa* R Sparrow-: 10 cm. Light olive green above, yellow below. Tail black. Bill scarlet. Grass and scrub jungle. Mainly C. India.

7. (532) SPOTTED MUNIA *Lonchura punctulata* R Sparrow-: 10 cm. Breeding birds chocolate brown above, white below, speckled with black. Grassland. Subcontinent; Sri Lanka.

8. (533) BLACKHEADED MUNIA *Lonchura malacca* R Sparrow-: 10 cm. Brown with black head, abdomen white. Cultivation and swampy ground. N., NE. and peninsular India; Bangladesh; Sri Lanka.

9. (530) WHITEBACKED MUNIA *Lochura striata* R Sparrow-: 10 cm. Black and white Munia with heavy bluish conical bill and wedge shaped tail. Open country. Subcontinent. Sri Lanka; Andaman and Nicobar Is.

10. (529) WHITETHROATED MUNIA *Lonchura malabarica* R Sparrow-: 10 cm. Thick billed brown munia with pointed black tail. Pakistan; India; Bangladesh; Sri Lanka.

11. (531) RUFOUSBELLIED MUNIA *Lonchura kellarti* R Sparrow-: 10 cm. Mainly chocolate brown. Scrub, grassland near settlements. Southern parts of E. and W. Ghat complexes; Sri Lanka.

12. (534) ROSEFINCH *Carpodacus erythrinus* RM Sparrow±: 15 cm. Heavy conical finch bill and slightly forked tail distinctive. Willows along streams and thorny scrub. *Summer*: N. Baluchistan; W. Himalayas. *Winter*: Pakistan; continental and peninsular India; Bangladesh.

13. (536) REDHEADED BUNTING *Emberiza brunniceps* RM Sparrow+: 17 cm. Slender yellow sparrow like bird with longer noticeably forked tail. Cultivation, especially grain fields. *Summer*: N. Baluchistan. *Winter*: Plains of N., W. and C. India; Bangladesh.

14. (535) BLACKHEADED BUNTING *Emberiza melanocephala* M Sparrow+: 18 cm. Slender yellow sparrow like bird with noticeably forked tail. Cereal cultivation. Pakistan; N., W. and C. Indian plains.

15. (537) STRIOLATED BUNTING *Emberiza striolata* R Sparrow-: 14 cm. Brown with darker streaks. Rocky or stony, sparsely scrubbed hillsides. Pakistan; N. and C. India.

16. (538) CRESTED BUNTING *Melophus lathami* R Sparrow±: 15 cm. A prominently crested black and chestnut bird. Dry, stony, sparsely scrubbed hillsides; most of continental and peninsular India. Up to *c.* 1800 m.

1. **Great Crested Grebe** *Podiceps cristatus* (Linnaeus)

Plate 1

Syn. No. 3

Local names: *Shiva-hans* (NE. India).

Size: Domestic duck-. **Field Characters**: A tailless aquatic bird with long slender neck and pointed bill. Two black ear tufts and a chestnut and black ruff distinctive in breeding plumage, less evident in other seasons. White wing patch and white leading edge of wings conspicuous in flight. **Distribution**: Breeds in Baluchistan and Ladakh. Winter visitor to continental India as far south as *c.* 14°N. latitude. **Habits**: Affects jheels and littoral water, in pairs or scattered parties in reed-covered jheels. Dives when alarmed. Seldom seen on land. **Food**: Fish, tadpoles, frogs, insects and other invertebrates. **Nesting**: *Season* — June to August. Often nests gregariously. *Nest* — a conspicuous mass of water weeds on floating vegetation. *Eggs* — 3 to 5, pale sea green. Both parents incubate. Breeds sporadically in Kutch, perhaps also in Nepal and eastern India.

2. **Little Grebe** or **Dabchick** *Tachybaptus ruficollis* (Pallas)

Plate 1

Syn. No. 5

Local names: *Pandubi, Pantiri, Dubdubi, Churaka* (Hindi); *Dubdubi, Pandubi, Duburi* (Bengal); *Munu-gudi-kodi* (Telugu); *Mukkulippan, Tanni pullu* (Tamil); *Pind* (Kashmir); *Tubino* (Sind).

Size: Pigeon±; squat and tailless. **Field Characters**: A drab coloured, plump and squat little water bird with silky white underparts, short pointed bill, and no tail. In breeding plumage head and neck dark brown and chestnut, upper plumage slightly paler. Yellow swollen gape then conspicuous. Sexes alike. Pairs or parties, on jheels, village tanks, rain-filled ditches and ponds, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and up to about *c.* 2500 m elevation. The only race that concerns us is *capensis*. **Habits**: A good swimmer and expert diver. Vanishes below the surface with astounding rapidity, leaving scarcely a ripple behind. When fired at with a shot gun, the bird has often dived before the charge can reach it! Normally sedentary, but is capable of flying strongly and for long distances on its diminutive wings when forced by drought to change its habitation. **Call**: A sharp tittering heard chiefly when the birds are disporting themselves of an evening, pattering along the water, half running half swimming, with rapid vibrations of their stumpy wings and chasing one another around. **Food**: Aquatic insects and larvae, tadpoles, frogs, crustaceans, etc., procured by diving and under-water pursuit. **Nesting**: *Season* — ranging principally between April and October. *Nest* — a rough pad of sodden weeds and rushes on floating vegetation or a raft or debris, often half submerged. *Eggs* — 3 to 5, white but soon becoming brown-stained through contact with the sodden weeds with which the bird usually covers them up before leaving the nest in alarm or to feed.

3. **White** or **Rosy Pelican** *Pelecanus onocrotalus* Linnaeus

ACN: Great white pelican

Plate 2

Syn. No. 20

Local names: *Hawasil* (Hindi); *Gorapullo* (Bengali); *Chinkabatu* (Telugu); *Deohans* (Assamese); *Kulakeda* (Tamil); *Kotumpannom* (Malayalam).

Size: Vulture+. **Field Characters**: White or rose tinged with a tuft of yellowish feathers on breast, slight crest, feathers of forehead ending in a point above bill. Wing primaries and some secondaries black. Sexes alike but female smaller. Juvenile pale buffish brown. **Distribution**: Partly resident and partly winter visitor, Punjab to Assam. Occasional in south India. **Habits**: Seen usually in large congregations on jheels and lagoons. Other habits similar to those of the commoner Grey Pelican. **Nesting**: *Season* — February to April in the Great Rann whence it was first reported nesting among old nests of flamingos in 1960 . *Nest* — a bed of feathers on the ground. *Eggs* — 2, ivory white; juveniles sooty black. Breeds extralimitally in eastern Europe and the Middle East.

4. **Spotbilled** or **Grey Pelican** *Pelecanus philippensis* Gmelin

Plate 2

Syn. No. 21

Local names: *Hawaso; Hawasil, Lorer* (Hindi); *Bellua, Birwa* or *Bheerwa* (Bihar); *Ganggoya, Gaganber, Garapolo* or *Gorapullo* (Bengal); *Chikabatu* (Telugu); *Deohans, Dhera, Bhela* (Assam); *Uphong* (Manipur); *Pas boruwa, Pasbara* (Sinhala); *Kulakeda* (Tamil, Sri Lanka); *Pen* (Sind; Kutch); *Kotumpannom* (Malayalam).

Size: Vulture+. **Field Characters**: A large squat water bird, chiefly grey and greyish white, with a brown nuchal crest. Short stout legs, large webbed feet and enormous heavy flattened bill, underhung throughout its length by an elastic bag of dull purplish skin. Large blue-black spots along edge of upper mandible, blackish wing quills and greyish brown tail diagnostic. Sexes alike. Flocks, at jheels, etc. **Distribution**: Well-watered tracts throughout the Indian Union, Nicobar (accidental); Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident but capricious; also locally migratory. **Habits**: Flocks float buoyantly or rest on mudbanks preening themselves. They fish by cooperative effort, swimming in a semi-circle, driving the fish before them into the shallows with vigorous splashing of their great wings, and scooping them up in their pouch which acts like a landing net. Considering their size, the birds take off the water with little effort, and when once launched fly strongly with steady rhythmical wing beats, head drawn in between the shoulders. Frequently seen during midday soaring in circles at great heights in company with storks. **Nesting**: *Season* — November to April. *Nest* — a large platform in tall trees and palms, often far from water; several nests in the same tree, and the colony often covering large areas. *Eggs* — 3, chalky white, becoming considerably dirty as incubation proceeds.

5. **Dalmatian Pelican** *Pelecanus philippensis crispus* Bruch

Plate 2

Syn. No.22

Local names: As for other pelicans.

Size: Vulture+; same as white pelican. **Field Characters**: Difficult to distinguish from white pelican at a distance. Legs and feet *dark grey* instead of pink. Forehead feathers ending in a concave crescentic line best diagnostic character. In flight, dusky white underside of wings distinctive. **Distribution**: Winter visitor to India, except Deccan and south India. **Habits**: Flocks on large rivers, jheels and coastal lagoons. **Nesting**: Breeds in eastern Europe, central and north Asia.

6. **Large Cormorant** *Phalacrocorax carbo* (Linnaeus)

ACN: Great Cormorant

Plate 1

Syn. No. 26

Local names: *Pan kowwa* (Hindi); *Pani kaori* (Assamese); *Pan-kawri* (Bengali); *Bonta kaki* (Telugu).

Size: Domestic duck. **Field Characters**: In non-breeding season distinguished from cormorants by size only. Black. Breeding birds have white on head and neck, and a large white patch on either flank conspicuous in flight. A yellow gular pouch which becomes less bright in non-breeding birds. Non-breeding without white in plumage. Juveniles brown above, white below. Adult plumage acquired from the fourth year. **Distribution**: Resident and migratory. A ringed bird from Kazhakstan recovered in the Punjab. Throughout India up to over 3000 m. **Habits**: Inhabits large inland waters, sand banks, tidal lagoons, etc., singly or in small flocks. Hunts fish by diving and chasing underwater. **Food**: Almost exclusively fish. **Nesting**: *Season* — September to February, varies in different localities. *Nest* — a massive platform in colonially mixed heronries. *Eggs* — 3 to 5 or 6, pale blue overlaid with white chalky layer. Both sexes share domestic duties. Courting birds engage in tail raising and bending the head backwards until it almost touches the back, the male all the while flapping its wings slowly.

7. **Indian Shag** *Phalacrocorax fuscicollis* Stephens

ACN: Indian Cormorant

Plate 1

Syn. No. 27

Local names: Same as the Cormorants.

Size: Duck+. **Field Characters**: Separated from Little Cormorant by longer and more slender bill. Breeding birds have white feather tufts behind eyes and white speckles on head and neck. Immature birds bronze-brown above, white below. **Distribution**: Resident throughout the subcontinent but not the Himalayas; Sri Lanka. Locally migratory. **Habits**: Gregarious, often in large flocks in jheels, rivers, etc., as with other cormorants. Hunts communally. **Food**: Almost exclusively fish. **Nesting**: *Season* — July to February, varies with locality. *Nest* — similar in size to crow's nest; breeds in small colonies as part of large mixed heronries. *Eggs* — 3 to 6, pale bluish green. Both sexes incubate.

8. **Little Cormorant** *Phalacrocorax niger* (Vieillot)

Plate 1

Syn. No. 28

Local names: *Pan-kowwa, Jograbi, Ganhill* (Hindi); *Pan kawri*, also for shag (Bengal); *Neetikaki* (Telugu); *Kadal kagam*, *Neer kagam* (Tamil); *Diya kawa* (Sinhala); *Kakataravu* (Malayalam).

Size: Jungle Crow+. **Field Characters**: A glistening black duck-like water bird with a longish stiff tail, and slender, compressed bill sharply hooked at the tip. A small white patch on throat, and suggestion of a crest at back of head. Sexes alike. Singly, or gregariously, at tanks, jheels, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Found on all inland waters; also brackish lagoons and tidal creeks. Lives exclusively on fish which it chases and captures under water, being an expert diver and submarine swimmer. Flocks occasionally hunt in concert like pelicans. When satiated, perches upright on a rock or stake near water, drying itself with outstretched wings. **Nesting**: *Season* — in N. India chiefly July to September; South India November to February. *Nest* — a shallow twig platform, like a crow's, in trees usually in mixed colonies of egrets, storks, etc. both near and away from water. *Eggs* — 4 or 5, pale bluish green, with a chalky surface.

9. **Darter** or **Snake-bird** *Anhinga rufa* (Daudin)

ACN: Oriental Darter

Plate 1

Syn. No. 29

Local names: *Panwa, Pan dubi, Banbe* (Hindi); *Silli* (Sind); *Goyar* (Bengal); *Pamubatu* (Telugu); *Chakuri* (southern Gonds); *Pambuttara* (Tamil, Sri Lanka); *Diya kawa, Belli kawa* (Sinhala); *Maniori, Begiagir* (Assam).

Size: Kite±. **Field Characters**: A black cormorant-like water bird with silvery grey streaks on the back, and velvety brown head and neck. Chin and throat whitish; tail long, stiff, wedge-shaped. The slender, snake-like neck, narrow head and pointed dagger bill are diagnostic features. Sexes alike. Singly, or loose parties, on tanks and jheels. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Very like the cormorants' except that it is more individualistic, less gregarious and does not hunt in cooperative flocks. When swimming the body remains submerged; only the slender, snake-like neck shows above the surface, swaying and turning this way and that, aptly suggestive of the bird's name. Its staple food is fish. The Darter chases them below the surface with speed, wings held half open and head and neck swaying back and forth like a javelin-thrower poising his missile. A special contrivance in the neckbones enables the bird to shoot out its bill at the quarry as by a powerful spring. When suddenly come upon, resting in a tree overhanging water, the birds flop plumb down, 'dragging' through the intervening branches as if shot dead; they dive and scatter in all directions, surfacing again a safe distance away. **Nesting**: *Season* — North India June-August; South India November-February. *Nest* — a twig platform similar to the cormorant's, built gregariously in trees amongst a mixed heronry, usually near water. *Eggs* — 3 or 4, elongated, pale greenish blue.

10. **Great Whitebellied Heron** *Ardea insignis* Hume

ACN: Whitebellied Heron

Plate 2

Syn. No. 33

Local names: Not recorded.

Size: Grey Heron+. **Field Characters**: Like the grey heron but considerably larger. Crown slaty black. Longer, crest feathers tipped with grey. Tail and primaries slaty black. **Distribution**: Resident in eastern India north of the Ganges but apparently rare. A solo identified at Point Calimere, Tamil Nadu, in December 1983 from among a flock of egrets and grey herons is the southern most record for the country. **Habits**: Similar to other herons. **Nesting**: Not recorded in India. Breeds in Myanmar in April in massive nests on tall trees.

11. **Giant Heron** *Ardea goliath* Cretzschmar

ACN: Goliath Heron

Plate 2

Syn. No. 34

Local names: None recorded.

Size: *c.* 142-145 cm (56-60 in.). **Field Characters**: Looks like a gigantic Purple Heron. Crown and crest deep vinous chestnut, neck rufous-cinnamon; chin, cheeks and throat white, elongate breast plumes streaked white and slaty black. Upper parts, wings and tail slaty grey. Lower parts including wing lining deep chestnut or maroon. Sexes alike **Distribution**: Rare vagrant. Recorded from Madhya Pradesh and Bengal; also Pakistan; Bangladesh; Sri Lanka. Essentially an African/Arabian species. **Habits**: Solitary, frequents estuaries, swamps, inland lakes. **Food**: Similar to other herons. **Nesting**: Extralimital. Breeds on islands off the African and Arabian coasts.

12. **Grey Heron** *Ardea cinerea* Linnaeus

Plate 2

Syn. No. 35

Local names: *Nari, Kabud, Anjan, Sain* (Hindi); *Khyra* (Bihar); *Sada kank* or *Kank, Anjan* (Bengal); *Saa* (Sind); *Brag* (Kashmir); *Nazayana pachchi* (Telugu); *Narai, Sambal narai* (Tamil); *Charamunti* (Malayalam); *Kalapua karawal koka, Indura koka* (Sinhala); *Kudal* (Kolis of Maharashtra).

Size: Openbilled Stork±. **Field Characters**: A lanky stork-like bird, ashy grey above with white crown and neck; greyish white below, with long slender S-shaped neck, narrow head, and pointed dagger bill. A long black occipital crest, and elongated white feathers on the breast with some black streaks. A conspicuous black dotted line down middle of foreneck. Female similar, but crest and pectoral plumes less developed. Solitary, at reedy jheels, rivers, etc. **Distribution**: Throughout the Indian union up to *c.* 1400 m in the Kashmir Valley; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and migratory. An individual ringed at Amritsar in March was picked up dead the following month at Balkash Lake in Russia. **Habits**: Somewhat crepuscular. Wades circumspectly into shallow water with neck

craned and bill poised, or stands hunched up but alert waiting for a frog or fish to blunder within striking range. Flies with steady wing beats, neck folded back and head drawn in between the shoulders, the long legs trailing behind. **Call**: A deep harsh croak uttered in flight. **Nesting**: *Season* — mainly July to September in N. India; November to March in the south and in Sri Lanka. *Nest* — a twig platform with the central depression lined with grass, etc. Built gregariously in trees, often amongst mixed heronries. *Eggs* — 3 to 6, deep sea-green. Both sexes share all domestic duties.

13. **Purple Heron** *Ardea purpurea* Linnaeus

Plate 2

Syn. No.37

Local names: *Lal anjan* (Hindi); *Lal kank* (Bengali); *Lal kol* (Assamese); *Yerra narayana tella konga* (Telugu); *Peria vellai kokku* (Tamil); *Perununti* (Malayalam).

Size: Grey heron-. **Field Characters**: Bluish grey above with rufous head and neck; black and chestnut below. Bright purple in direct sunlight. Immature birds uniform cinnamon-brown. **Distribution**: Resident and locally migratory throughout Indian sub-continent, Andamans and Nicobars; Sri Lanka. Numbers augmented by winter visitors. **Habits**: Largely crepuscular and solitary. Seen at jheels, swamps, etc. Keeps to dense cover, flies up with a harsh croak when startled. **Food**: Fish, frogs, snakes, etc. **Nesting**: *Season* — June to March depending on locality. Usually in exclusive colonies of its own; if in a heronry, segregated to its own species. *Nest* — platform of sticks, etc., in trees, reed beds, *Pandanus*, etc. *Eggs* — 3 to 5, pale sea green or greenish blue. Both sexes share parental duties.

14. **Large Egret** *Ardea alba* Linnaeus

ACN: Great Egret

Plate 2

Syn. No. 46

Local names: *Bada bagla* (Hindi); *Bada bak* (Bengali); *Bor bog* (Assamese); *Pedda pakshi* (Telugu); *Chennarai* (Tamil); *Chayamunti* (Malayalam).

Size: Grey heron-. **Field Characters**: A lanky snow white egret. Legs bare, black, bill black-and-yellow, or yellow. Breeding birds develop a cluster of flimsy ornamental dorsal plumes ('aigrettes') falling over beyond the tail. Difficult to distinguish from other egrets in non-breeding plumage except the Little Egret which has parti-coloured black-and-yellow feet. **Distribution**: Resident throughout the sub-continent; Sri Lanka; Andamans (winter). Two races: *alba* (winter straggler); *modesta* (resident). **Habits**: Affects jheels, marshes, rivers, etc. Usually solitary. Behaviour and feeding habits similar to Grey Heron's. **Food**: Fish, frogs, etc. **Nesting**: *Season* — July to February depending on locality. Colonial, in mixed heronries. *Nest* — a flimsy platform of sticks on trees in or near water or trees away from water even in the midst of noisy city streets. *Eggs* —3 or 4, pale green. Both sexes share domestic duties.

15. **Little Green Heron** *Ardeola striatus* (Linnaeus)

ACN: Striated Heron (*Butorides striatus*)

Plate 3

Syn. No. 38

Local names: *Kancha bagla* (Hindi); *Kana bak* or *Kuro bak* (Bengal); *Kona moochree* (Assam); *Dosi konga* (Telugu); *Doshi kokku* (Tamil); *Podi kokka* (Sinhala); *Chinna kokku* (Malayalam).

Size: Paddy Bird±. **Field Characters**: Like the Paddy Bird in general effect, but largely blackish grey, glossy dark green and bronze-green above; ashy grey below. Crown and long occipital crest glossy greenish black. Chin and throat white. Sexes alike. Solitary, in brush-wood at water's edge. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Several races. **Habits**: Largely crepuscular, but also active in daytime, particularly in cloudy overcast weather or in shady spots with bushes bordering water. Affects streams and inland waters as well as mangrove swamps and tidal creeks **Food**: Crabs, shrimps, mud-fish, etc. Flight and general behaviour similar to the Paddy Bird's but is less common and more secretive and silent. **Nesting**: *Season* — overall March to August, varying locally. *Nest* — a rough stick platform up in a small tree on the edge of water, or in a mangrove swamp. Built singly, not in colonies. *Eggs* — 3 to 5, very like the Paddy Bird's, pale greenish blue.

16. **Paddy Bird** or **Pond Heron** *Ardeola grayii* (Sykes)

ACN: Indian Pond Heron

Plate 3

Syn. No.42

Local names: *Bagla, Andha bagla, Chama bagla, Khunch bagla* (Hindi); *Konch bak* (Bengal); *Bogli* (Mirshikars, Bihar); *Ral puchake* (Gond); *Kulathu kokku, Kurutu kokku, Madai katan, Madayan* (Tamil); *Guddi konga* (Telugu); *Kana kokka, Podi kokka* (Sinhala); *Broku* (Kashmir); *Kulamuti* (Malayalam).

Size: Cattle Egret-. **Field Characters**: An egret-like marsh bird chiefly earthy brown when at rest, but with the glistening white wings, tail and rump flashing into prominence immediately it flies. In breeding season acquires maroon hair-like plumes on back, and long white occipital crest. Sexes alike. Singly, or loose parties, at jheels, ponds, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and up to about 1000 m elevation. **Habits**: Found wherever there is water; river, jheel, roadside ditch, *kutcha* well, or temple pond, often even in the midst of populous towns. Also on the seacoast in mangrove swamps, tidal mudflats, etc. Its normal method of feeding is to stand hunched up at the water's edge watching patiently for movement and jabbing at the quarry when opportunity offers. Sometimes it wades into the shallows, moving forward stealthily and with circumspection, neck craned and bill poised in readiness. **Food**: Frogs, fish, crabs and insects. Flight typically heron — steady wing beats with neck pulled in. Roosts in large leafy trees in mixed congregations of crows and other birds. **Call**: A harsh croak uttered when flying off. A low conversational note, *waku*, and a variety of peculiar mumblings are produced by nesting pairs. **Nesting**: *Season* — chiefly May to September (SW monsoon); November to January in S. India, *Nest* — an untidy twig platform like a crow's up in large mango, tamarind and such-like trees, shared with other egrets. Frequently within town limits; not necessarily near water. *Eggs* — 3 to 5, pale greenish blue.

17. **Chinese Pond Heron** *Ardeola bacchus* (Bonaparte)

Plate 3

Syn. No. 43

Local name: *Lampra* (Manipuri).

Size: Indian Pond Heron+. **Field Characters**: Slightly larger than the Pond Heron and indistinguishable from it in the non-breeding season. Breeding birds have the head, neck and long nuchal crest maroon-chestnut. Back and scapulars slate black. *Below* maroon-chestnut, with chin and throat white. Breast plumes black tipped. **Distribution**: Resident in NE. India, Andamans; Bangladesh. Subject to local movements. **Habits, Food**: Similar to Indian pond heron. **Nesting**: *Season* — May to August in Assam in mixed heronries. *Nest, Eggs*: Similar to the Indian Pond Heron's.

18. **Cattle Egret** *Bubulcus ibis* (Linnaeus)

Plate 3

Syn. No. 44

Local names: *Surkhia bagla, Gai-bagle, Badami bagla, Doria bagla* (Hindi); *Go bak, Gai bak* (Bengal); *Samti konga* (Telugu); *Unni kokku* (Tamil, Sri Lanka); *Harak-kokka* (Sinhala); *Jobogali* (Assam); *Gochandi khao* (Marathi); *Kurk pakkhi* (Sind); *San-dung-il* (= 'following after cattle' — Manipur); *Kalikunti* (Malayalam).

Size: Little Egret. **Field Characters**: In non-breeding pure white plumage distinguished from the Little Egret by colour of bill which is *yellow*, not black. The orange-buff head, neck, and back of the breeding plumage render it unmistakable. Sexes alike. Parties, attending on grazing cattle. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Only the race *coromandus* concerns us. **Habits**: Gregarious. Mostly seen with grazing cattle, stalking energetically alongside the animals, running in and out between their legs or riding upon their backs, and lunging out to seize insects disturbed by their movements amongst the grass. **Food**: Chiefly grasshoppers, bluebottle flies, cicadas and other insects; also frogs, lizards, fish, etc. Banyan capsules avidly gulped down in season. Roosts at night in favourite trees, sharing these with crows, mynas and other birds. **Nesting**: *Season* — chiefly June to August in North India; November to March in the south and in Sri Lanka, varying according to monsoon conditions. *Nest* — an untidy twig platform like a crow's. In mixed colonies with cormorants, paddy birds, etc., in large leafy trees, not necessarily near water and often in the midst of a noisy town. *Eggs* — 3 to 5, pale skim-milk blue.

19. **Median** or **Smaller Egret** *Egretta intermedia* (Wagler)

Plate 3

Syn. No. 48

Local names: *Karchia bagla* (Hindi); *Korche bak* (Bengal); *Talla konga* (Telugu); *Vellai kokku* (Tamil).

Size: Length *c.* 65 cm (26 in.). **Field Characters**: Pure white. Difficult to distinguish from the slightly bigger Large Egret except in breeding plumage, when filamentous plumes occur on back as well as breast. **Distribution**: Resident throughout plains of the subcontinent. Sri Lanka. Also the Andamans and Nicobars. **Habits**: Frequents jheels, marshes, estuaries, mangrove swamps, etc. Often in small flocks in non-breeding season. **Food, Nesting**: Similar to Large Egret's.

20. **Little Egret** *Egretta garzetta* (Linnaeus)

Plate 3

Syn. No. 49

Local names: *Kilchia* or *Karchia bagla* (Hindi); *Bararo* (Sind); *Chhota korche bak* (Bengal); *Teteri bog* (Assamese in Nowgong); *Chinna tella konga* (Telugu); *Chinna vellai kokku* (Tamil, Sri Lanka); *Sudu kokka* (Sinhala); *Chinnamunti* (Malayalam).

Size: Village hen; longer neck and legs. **Field Characters**: A lanky snow white marsh bird differentiated from the very similar Cattle Egret (18) in non-breeding plumage by its black bill and parti-coloured black and yellow feet. A long drooping crest of two narrow plumes acquired in the breeding season; also dainty filamentous ornamental feathers (aigrettes) in both back and breast. Sexes alike. Flocks on marshland and jheels, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Gregarious. Affects marshes, jheels and rivers; also tidal mudflats. Flies with steady wing beats, neck pulled in like a heron; roosts in trees. **Food**: Insects, fish, frogs and small reptiles. Occasionally takes leaping fish on the wing, and carries it to a perch for eating. In former years 'aigrettes' were in great demand in western countries for millinery purposes. The trade is now illegal. **Nesting**: *Season* — principally July/August in North India; November to February in the south. *Nest* — a shallow twig platform, like a crow's, lined with straw, leaves, etc. Built in trees, amongst mixed heronries, often near a village. *Eggs* — 4, pale bluish green.

21. **Indian Reef Heron** *Egretta gularis* (Bosc)

ACN: Western Reef Egret

Plate 3

Syn. No. 50

Local names: *Kala bagla* (Hindi); *Thiramunti* (Malayalam); *Theerapu konga* (Telugu); *Karai kokku, Karpu kallavayan* (Tamil).

Size: Little Egret+. **Field Characters**: General effect of the Little Egret but has two colour phases; (1) pure white, (2) bluish slaty with a white patch on throat. Some examples parti-coloured. A backwardly drooping crest of two narrow plumes is acquired in the breeding season. White phase difficult to differentiate from the Small Egret, but its seashore habitat is suggestive. Sexes alike. Singly, on rocky seashore, mangrove swamps, etc. **Distribution**: The coast of western India; Pakistan and Sri Lanka. Only the race *schistacea* concerns us. The allied Eastern Reef Heron (*E. sacra*) with a bushy crest, occurs in Myanmar, Andaman and Nicobar Islands.

Habits: Not appreciably different from other egrets and herons, except that it is essentially a bird of the seacoast, seldom found far inland above tidal influence. **Food**: Mainly crustaceans, molluscs and fish, especially the mud-crawler (*Periophthalmus*). Wades into the shallow surf or in a rock pool left by the receding tide, crouching forward on flexed legs, 'freezing' with poised neck and bill and stabbing at quarry blundering within range. **Nesting**: *Season* — March to July, varying with locality. *Nest* — a twig platform like that of other egrets, commonly built in colonies on mangrove trees in a tidal swamp, or in large peepul or jambul, often in association with other egrets, paddy birds, etc. *Eggs* — 3 or 4, pale sea-green or blue-green, unmarked.

22. **Night Heron** *Nycticorax nycticorax* (Linnaeus)

Plate 3

Syn. No. 52

Local names: *Waak, Kwaak, Tar bagla, Kokrai* (Hindi); *Bor* (Kashmir); *Bachka* (Bengal); *Chongkhu* (Manipur); *Raat Baggal, Raat kokku, Raj kok* (Marathi); *Awaak, Waak* (Gujarat); *Gadri* (Sind); *Chinta wakha* (Telugu); *Vakka* (Tamil); *Toppi kokku* (Malayalam); *Re kana kokka* (Sinhala).

Size: Paddy Bird±. **Field Characters**: General effect of a stocky Paddy Bird, with stouter bill. Ashy grey above with glistening black back and scapulars; white below. Crown, nape and long occipital crest black; the last with some white plumes intermixed. Young birds streaked brown, rather like Paddy Bird. Sexes alike. Gregarious. Flying at dusk with loud, raucous *kwaark*. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Largely crepuscular and nocturnal. Affects jheels and other inland waters as well as tidal creeks and mangrove swamps. Colonies spend the daytime resting in some clump of leafy trees, often far from water, and fly out to their accustomed feeding grounds at dusk in straggling ones and twos uttering a distinctive *kwaark* from time to time. Flight like the Paddy Bird's — steady flapping, neck pulled in; in silhouette resembles both the flying fox's and the gull's. The same communal roosts and nesting trees are occupied year after year. **Food**: Crabs, fish, frogs, aquatic insects, etc. More actively procured and not usually in the 'wait and strike' manner of herons. **Nesting**: *Season* — between April and September in North India; December to February in the south. *Nest* — the usual twig structure of egrets. Built in colonies in canopy of large leafy trees or screwpine brakes, near or removed from water. *Eggs* — 4 or 5, pale sea-green. Both sexes share all domestic duties.

23. **Tiger Bittern** *Gorsachius melanolophus* (Raffles)

ACN: Malayan Night Heron

Plate 4

Syn. No. 53

Local names: *Raj bog* (Assamese); *Thavittu kokku* (Malayalam).

Size: Pond Heron+. **Field Characters**: Crown and nuchal crest ashy black. Back chestnut-cinnamon closely barred with black. Primaries and secondaries with white tips. Tail black. Underparts largely white, streaked, blotched or spotted with black. Rufous on lower breast and abdomen. **Distribution**: Resident in the heavy rainfall areas of the Western Ghats; Eastern India. N. Bangladesh. Winters in Sri Lanka. Race *minor* in Nicobar Islands. **Habits**: A largely nocturnal, shy inhabitant of streams and marshes in thick forest. **Call**: Usually silent; incubating birds hiss and croak. **Food**: Fish, frogs, etc. **Nesting**: *Season* — May to June in eastern India; May to August in SW. India. *Nest* — an untidy platform of sticks lined with reeds on trees overhanging streams. *Eggs* — 3 to 5, bluish white. Breeding details unknown.

24. **Little Bittern** *Ixobrychus minutus* (Linnaeus)

Plate 4

Syn. No. 55

Local name: *Goi* (Kashmiri).

Size: Pond heron-. **Field Characters**: Identified in flight by the whitish shoulder patch contrasting with the black wings. Male black above with grey to whitish patch on closed wing, masking black flight feathers at rest. Sides of head and neck greyish pink. Below white to buff, with ochre on upper breast and blackish maroon lower breast. In females the black is replaced by chestnut brown; shoulder patch, chestnut brown. **Distribution**: Resident in north and east India. Also Pakistan (Sind), Nepal and N. Bangladesh. **Habits**: Usually single. Crepuscular and addicted to reed beds. Freezes when startled, becoming invisible among the reeds. **Call**: A frog-like *wuk*. **Food**: Fish, molluscs, etc. **Nesting**: *Season* — May to July. *Nest* — a pad of rushes in a dense reed bed. *Eggs* — 4 to 6 or 7, white with often a bluish tinge. Both sexes share domestic duties.

25. **Chestnut Bittern** *Ixobrychus cinnamomeus* (Gmelin)

ACN: Cinnamon Bittern

Plate 4

Syn. No. 56

Local names: *Lal bagla* (Hindi); *Khyri bak* or *Lal bak* (Bengal); *Meti kokka* (Sinhala); *Kuruttu kokku* (Tamil); *Sandhya kokku* (Malayalam).

Size: Paddy Bird-. **Field Characters**: An unmistakable cousin of the Paddy Bird. Upperparts chestnut-cinnamon; chin and throat whitish with a dark median stripe down foreneck. Upper breast chestnut and black; rest of underparts pale chestnut. Female duller with brown-streaked rufous-buff underparts. Solitary, in and about reedy marshes, etc. **Distribution**: The greater part of the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Very similar to those of the Little Green Bittern. When surprised on its nest or cornered, it assumes the characteristic attitude of its tribe (the bitterns), aptly termed the 'On Guard'. The neck is stretched perpendicularly, bill pointing skyward, while the bird 'freezes', becoming astonishingly obliterated amongst its reedy environment. **Nesting**: *Season* — July to September (SW monsoon). *Nest* — a small twig platform among reeds in a swamp, or in bushes at the edge of a monsoon-filled pond. *Eggs* — 4 or 5, white.

26. **Yellow Bittern** *Ixobrychus sinensis* (Gmelin)

Plate 4

Syn. No. 57

Local names: *Jun bagla* (Hindi); *Kat bak* (Bengali); *Manal narai* (Tamil); *Manjakokku* (Malayalam).

Size: Pond Heron-. **Field Characters**: Yellowish fawn body contrasting with black wings in flight, distinctive. General colour yellow, brown, rufous and chestnut. **Distribution**: Resident throughout India. **Habits**: Affects reed beds, inland swamps, coastal mangroves, estuaries, etc. Largely crepuscular but active during the day in cloudy overcast weather. When startled, freezes in typical bittern posture merging into the reed background. **Food**: Fish, frogs, molluscs, etc. **Nesting**: *Season* — June to September. *Nest* — a pad of reed flags on reeds or shrubbery near a pond. *Eggs* — 4 to 6, pale blue or greenish blue. Both sexes share parental duties.

27. **Black Bittern** *Ixobrychus flavicollis* (Latham)

Plate 4

Syn. No. 58

Local names: *Kala bagla* (Hindi); *Kalo bak* (Bengali); *Ay jan* (Assamese); *Karuppu narai* (Tamil); *Karutha kokku* (Malayalam).

Size: Pond Heron+. **Field Characters**: Largely black and rufous with a conspicuous buff-and-white cheek patch and a bright ochre-yellow band on either side of neck. Female brownish rather than slate. **Distribution**: Resident, thinly and patchily distributed throughout the better watered parts of the subcontinent; Nepal; Sri Lanka. Local migrant. An individual bearing a Malayan ring was picked up dead in Manipur. **Habits**: Solitary, largely crepuscular, and nocturnal. Affects reedy inland swamps and overgrown seepage nullas in jungles. **Call**: Produces a booming call in the breeding season. Freezes when startled. **Food**: Fish, frogs, insects, etc. **Nesting**: *Season* — June to September. *Nest* — a pad of twigs or weeds in reeds in swamps, cane brakes, bamboo clumps. *Eggs* — 4, blue or green ringed white. Both sexes share parental duties.

28. **Bittern** *Botaurus stellaris* (Linnaeus)

ACN: Great Bittern

Plate 4

Syn. No. 59

Local name: *Baz* (Hindi).

Size: Pond heron+. **Field Characters**: Tawny buff, barred or mottled with blackish. Bill short, stout and pointed. Stance hunchbacked as in the Pond Heron. **Distribution**: Winter visitor to north and NE. India; Pakistan; Bangladesh. Straggler to the south up to Sri Lanka. **Habits**: Occurs in dense reed beds and other marshland vegetation in inland jheels and swamps. Solitary, crepuscular, freezes when alarmed. **Food**: Fish, frogs, etc. **Nesting**: Breeds in the temperate Palaearctic from Great Britain to Japan. Booming call heard during breeding season. Possibly breeds in Kashmir. *Nest* — similar to other bitterns'. *Eggs* — 4 to 6, light olive brown.

29. **Painted Stork** *Mycteria leucocephala* (Pennant)

Plate 5

Syn. No. 60

Local names: *Janghil, Dokh* (Hindi); *Kankari* (Mirshikars, Bihar); *Jhangil, Ram jhankar, Sona jangha* (Bengal); *Lamjang, Lungduk* (Sind); *Chitroda* (Kutch); *Yeru kala konga* (Telugu); *Chenga narai* (Tamil); *Sanguvalai narai* (Tamil, Sri Lanka); *Dae truduwa* (Sinhala).

Size: White Stork±. **Field Characters**: A typical large stork with long, heavy, yellow bill slightly decurved near tip, and unfeathered waxy yellow face. Plumage white, closely barred and marked with glistening greenish black above, and with a black band across breast. The only white stork having a delicate rose-pink about the shoulders and on wing. Wing- and tail-quills black. Sexes alike. Pairs, parties or large congregations at jheels, and marshes. **Distribution**: Throughout the Indian Union; Pakistan; Nepal; Bangladesh; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: In general similar to those of other

storks. Spends the day standing 'hunched up' and inert or sauntering about sedately on grassy marshland in quest of fish, frogs and snakes. Also wades into shallow water moving forward with neck craned down, bill immersed and partly open swaying from side to side with a scythe-like action. **Nesting**: *Season* — between August and January, varying with local conditions. *Nest* — a large stick platform with a shallow depression in the middle lined with leaves, straw, etc. Built on trees standing in or near water, often 10 to 20 nests in a single tree and almost touching one another. Breeds in enormous heronries, often sharing these with Cormorants, Pelicans, Egrets, Openbill Storks, White Ibises, etc. *Eggs* — 3 to 5, dull sullied white, occasionally with sparse brown spots and streaks. Both sexes share all the domestic duties.

30. **Openbill Stork** *Anastomus oscitans* (Boddaert)

ACN: Asian Openbill

Plate 5

Syn. No. 61

Local names: *Gungla, Ghonghila, Ghungil* (Hindi); *Dokar* (Bihar); *Thonte bhanga, Shakukh bhanga, Shakukh khol* (Bengal); *Pouna konga* (Southern Gonds); *Galu konga* (Telugu); *Naththai kuththi narai* (Tamil); *Gombelle kokka, Bellan kokka, Beli kava* (Sinhala); *Samuk bhanga* ('snail breaker' - Assamese, Nowgong); *Cherakokkan* (Malayalam).

Size: White Stork-; about 76 cm high. **Field Characters**: A small white or greyish white stork, with black in the wings. In the distance rather like the White Stork, but the peculiar reddish black bill with arching mandibles leaving a narrow open gap between them is diagnostic. Sexes alike. Twos and threes, or flocks, at jheels and marshes. Occasionally also tidal mudflats. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: One of our commonest storks with a wide and general distribution. General habits typical of the storks. The precise significance and function of the curiously shaped bill is obscure and calls for special investigation. It may have to do with opening the thick shells of the large *Ampullaria* snails found on marshes, the soft body and viscera of which form a large proportion of its food in due season. It also eats frogs, crabs, large insects and other small living things. **Nesting**: *Season* — mostly between July and September in N. India; November to March in the south and in Sri Lanka. Breeds in colonies amongst mixed heronries of cormorants, egrets, painted storks, etc. *Nest* — a circular platform of twigs with the central depression lined with leaves. *Eggs* — 2 to 4, white, close textured.

31. **Whitenecked Stork** *Ciconia episcopus* (Boddaert)

ACN: Woollynecked Stork

Plate 5

Syn. No.62

Local names: *Manik-jor* (Bengal); *Laglag* (Hindi); *Bagula, Kardok, Kandesur, Kowrow* (Marathi); *Kali tul* (Gujarat); *Vannathi narai* (Tamil); *Kanua* (Assam); *Karim kokku* (Malayalam); *Padili kokka* (Sinhala).

Size: White Stork-; about 85 cm high. **Field Characters**: A glistening black stork with conspicuous white neck and black 'skull cap'. Abdomen and vent white. Long red legs; heavy blackish bill. Sexes alike. Pairs, or parties, on or near marshland. **Distribution**:

Practically throughout the Indian Union up to about 1000 m in the Himalayas; Pakistan (rare); Nepal; Bangladesh; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Affects well-watered plains country. Partial to water-logged ground, and the environs of rivers, jheels and ponds especially where the latter are in the process of desiccation leaving fish and frogs high and dry. Soaring aloft and other habits similar to those of the White Stork. **Food**: Fish, frogs, reptiles, crabs, molluscs, large insects, etc. **Nesting**: *Season* — practically all year, varying locally. *Nest* — a large stick platform with a central depression lined with grass and rubbish; high up in a Silk Cotton (*Salmalia*) or similar tall tree, usually near water and often also close to a village. *Eggs* — 3 or 4, white, obtuse ovals.

32. **White Stork** *Ciconia ciconia* (Linnaeus)

Plate 5

Syn. No. 63

Local names: *Laglag, Haji laglag, Ujli, Dhak, Gybar, Bada retwa* (Hindi); *Wadumi konga* (Telugu); *Laklak* (Sind).

Size: Vulture±; standing about 100 cm high. **Field Characters**: A long-legged, long-necked, egret-like bird, pure white except for the black wings. Legs and heavy, pointed bill red. (Bill black in E Asiatic *boyciana*). Sexes alike. Singly, pairs or parties on and about marshland. **Distribution**: Winter visitor in small numbers. Practically throughout the Indian Union (rare south of the Deccan); Pakistan; Nepal; Bangladesh; Sri Lanka. Two races: the European-W. Asiatic *ciconia*, and the E. Asiatic *boyciana*. **Habits**: Keeps in pairs or small parties, collecting into large flocks for the northward migration in spring. A young stork ringed in Germany was recovered in Bikaner, about 6400 km distant. Flight seemingly leisurely, but swift, and strong — rapid wing beats punctuated with short glides. Much given to soaring and circling on thermal currents high up in the air along with vultures, etc. **Food**: Frogs, lizards and large insects. Takes heavy toll of locusts and their eggs. Lacks voice muscles; the only sound produced is a loud clattering of the mandibles, especially during the breeding season, with the neck bent right over so that the crown touches the back. The gular pouch, puffed out, serves as a resonating organ. **Nesting**: *Season* — in W. Asia and C. Europe May to July. *Nest* — a large stick platform on chimneys, tops of buildings, tall trees, etc. *Eggs* — 3 to 5, pure white.

33. **Black Stork** *Ciconia nigra* (Linnaeus)

Plate 5

Syn. No. 65

Local name: *Surmal* (Hindi).

Size: White Stork±. **Field Characters**: *Above* — black, highly glossed with green, bronze and purple. *Below* — lower breast, belly, flanks and under tail-coverts white. **Distribution**: Winter visitor to northern India; Pakistan; Nepal east to Myanmar. Rare in the Deccan - southernmost record from Rollapadu (15°52'N. lat.), Andhra Pradesh. Sri Lanka (once). **Habits**: Shy and wary, seen in pairs or small flocks in marshy areas, rivers, inland waters often in association with White Storks. **Food**: Carnivorous - fish, frogs, molluscs, insects added to with an occasional young or disabled bird or rodent. **Nesting**: *Season* — In Central Europe in April to May. *Nest* — a large stick platform built on a lofty tree. *Eggs* — 3 to 5, white.

34. **Blacknecked Stork** *Ephippiorhynchus asiaticus* (Latham)

Plate 5

Syn. No. 66

Local names: *Banaras, Loharjang, Loha sarang* (Hindi); *Lohar jangh* or *Loha jangha* (Bengal); *Telia hareng* (Assam); *Periya narai* (Tamil); *Pedda nalla konga* (Telugu); *Ali kokka* (Sinhala).

Size: White Stork+; about 125 cm high. **Field Characters**: The large size, enormous black bill, glistening black head and neck, white underparts and pied black and white wings readily identify this stork. Sexes alike but iris-brown in male, lemon-yellow in female. Solitary, on marshland and jheels. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Confined to rivers, jheels and marshes. Usually met with as a solitary bird wading in shallow water. It is more of a fish eater than other storks, but also eats frogs, reptiles, crabs, etc. Though widely distributed, the species is nowhere common or abundant. Destruction of wetlands and trapping the birds for zoos have reduced their numbers further and the species could be endangered now. **Nesting**: *Season* — between August and January, varying locally. *Nest* — an enormous deep platform of twigs with a depression in the centre lined with leaves and grass. Placed near the top of a large peepul or similar tree standing near water or amidst cultivation. *Eggs* — 3 or 4, white, like those of other storks.

35. **Adjutant Stork** *Leptoptilos dubius* (Gmelin)

ACN: Greater Adjutant

Plate 5

Syn. No. 67

Local names: *Hargila Garur, Peda dhauk* (Hindi); *Dhenk* (Mirshikars, Bihar); *Dusta* (Hindi in Deccan); *Hargila* (Bengal); *Peenigala konga* (Telugu).

Size: Vulture+; standing about 125 cm high. **Field Characters**: A large, sad coloured black, grey and dirty white stork with an enormous yellow wedge-shaped bill, and naked head and neck. The long naked ruddy pouch pendent from the chest is diagnostic. Sexes alike. Singly or parties, on marshes. **Distribution**: Northern and NE. India; Bangladesh; Myanmar. Local migrant; Pakistan during rain. Rare in the Deccan. **Habits**: A close relation of the African Marabou; called Adjutant from its measured martial gait as it paces up and down. An efficient scavenger, often consorting with kites and vultures to feed at carcasses and garbage dumps on outskirts of villages. Also eats frogs, fish, reptiles, large insects, etc. Heavy in the take-off, but flies strongly with noisy rhythmical flaps when once properly air-borne, and also circles aloft gracefully on motionless wings as most other storks do. A loud clattering of the mandibles is the only sound normally produced. **Nesting**: Scattered colonies in North and NE. India, and the Sundarbans. Its real breeding grounds lie in S. Myanmar where enormous colonies, mixed with pelicans and Smaller Adjutants, are active between October and December. *Nest* — an immense stick platform on rock pinnacles or lofty forest trees. *Eggs* — 3 or 4, white.

36. **Lesser Adjutant** *Leptoptilos javanicus* (Horsfield)

Plate 5

Syn. No. 68

Local names: *Chinjara Chandana, Chandiari, Bang gor, Chhota garur* (Hindi); *Madanchur, Madantak* (Bengal); *Tokla moora* (= 'bald head', Assam); *Bor tokola* (Nowgong, Assam); *Dodal konga, Doidal gatti gadu* (Telugu); *Meva kokku* (Tamil); *Mana* (Sinhala); *Vayalnaicken* (Malayalam).

Size: Vulture+. **Field Characters**: Similar to, but smaller in size than the Adjutant with less erect carriage and glossy metallic black instead of slaty upperparts; white below. Lacks neck pouch. Sexes alike. **Distribution**: Resident and locally migratory. NE. India, Kerala; Bangladesh; Sri Lanka. Uncommon in continental India. **Habits**: Normally solitary and behaviour similar to the Adjutant but less of a scavenger and more shy. Affects well watered country. **Food**: Fish, frogs, reptiles and invertebrates. **Call**: Said to make a guttural noise. **Nesting**: *Season* — November to January. *Nest* — massive platform of sticks in lofty *Salmalia* and similar trees. *Eggs* — similar to the Adjutant's. Main nesting area NE. India. Only circumstantial evidence of its nesting in Kerala. Declining in Sri Lanka owing to disturbance in its breeding sites.

37. **White Ibis** *Threskiornis aethiopica* (Latham)

ACN: Blackheaded Ibis

Plate 6

Syn. No. 69

Local names: *Munda, Safed baza, Didhar* (Hindi); *Kachator* (Purnea, Bihar); *Mundukh* (Mirshikars, Bihar); *Kastechara, Sada dochara* (Bengal); *Boga akoki bog* (Assam); *Tattu kokka, Dahakatti kokka* (Sinhala); *Thalaikaththi chondan* (Tamil); *Kashanti kokku* (Malayalam).

Size: Village hen+. **Field Characters**: A large white marsh bird with naked black head and neck, and long, stout, black, downcurved curlew-like bill. In breeding plumage some slaty grey on scapulars and in wings, and ornamental plumes at base of neck. Sexes alike. Parties, on marshy land. **Distribution**: Throughout the Indian Union; Nepal; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: A close relation of the Spoonbill and very like it in habits and habitat. Walks about actively on marshy land probing with its bill into the soft mud, mandibles partly open like forceps. Often feeds in shallow water with the head momentarily submerged. Like storks and the Spoonbill, it lacks true voice-producing mechanism and is silent except for peculiar ventriloquial grunts uttered when nesting. **Nesting**: *Season* — in N. India June to August; in the south November to February. *Nest* — a platform of twigs in trees standing in or near water, frequently on village outskirts, and usually amongst mixed heronries. *Eggs* — 2 to 4, bluish or greenish white, sometimes with delicate spots of yellowish brown.

38. **Black Ibis** *Pseudibis papillosa* (Temminck)

ACN: Rednaped Ibis

Plate 6

Syn. No. 70

Local names: *Baza, Kala baza, Karan kul* (Hindi); *Kalo dochara* (Bengal); *Kala akohi bog* (Assam); *Nella kankanam* (Telugu).

Size: White Ibis-. **Field Characters**: A largish black bird with long curlew-like downcurved bill, a conspicuous white patch near the shoulder, and brick red legs. Naked black head with a triangular patch of crimson warts on the crown. Sexes alike. Pairs, or scattered parties, on the open countryside. **Distribution**: The drier portions of the Indian Union (excepting the western seaboard) south to Karnataka; Pakistan; Bangladesh (rare). Not Sri Lanka. The closely allied species *P. davisoni* occurs in Myanmar. **Habits**: Though often found in the neighbourhood of rivers and jheels it is by no means so dependent on water as the White Ibis, usually feeding around the dry margin higher up and in the surrounding stubble and fallow land. Keeps to favoured localities, and roosts in accustomed trees. Parties fly in V-formation by steady wing beats alternated with short glides. **Food**: Insects, grain and small reptiles. **Call**: A loud, nasal screaming cry of 2 or 3 notes reminiscent of the Ruddy Sheldrake, uttered mostly on the wing. **Nesting**: *Season* — ill-defined. March to October in North India; November-December in south. *Nest* — large, cup-shaped, of twigs, lined with straw, feathers, etc. High up in a tree, generally away from water; built singly and not in colonies or amongst mixed heronries. Old eagle's or vulture's nest sometimes utilised. *Eggs* — 2 to 4, bright pale green, either unmarked or with spots and streaks of brown.

39. **Glossy Ibis** *Plegadis falcinellus* (Linnaeus)

Plate 6

Syn. No. 71

Local names: *Chhota buza* (Hindi); *Kachia tora* (Bengali); *That kankanam* (Telugu); *Karuppukottan* (Tamil).

Size: Domestic hen+. **Field Characters**: Smaller than the Black Ibis. Breeding adults glistening black above and chestnut below with slender curved bill and feathered head. Sexes alike. Non-breeding birds with head and neck brown streaked with white. **Distribution**: Partly resident, partly winter visitor in north, east and NE. India, thence south to Kerala. Pakistan; Bangladesh; Sri Lanka. **Habits**: Gregarious. Frequents large jheels, river banks, marshes, etc. Feeds along edge of water with head often completely submerged. Flocks fly in V-formation. Roosts on trees. **Food**: Molluscs, crustaceans, insects, etc. **Call**: A bleating call during breeding season; otherwise silent. **Nesting**: *Season* — May to July. Colonial in mixed heronries. *Nest* — small platform of sticks on trees. *Eggs* — 2 or 3, blue-green. Both sexes share incubation.

40. **Spoonbill** *Platalea leucorodia* Linnaeus

ACN: Eurasian Spoonbill

Plate 6

Syn. No. 72

Local names: *Chamach baza, Chamcha, Dabil* (Hindi); *Chinta, Khunte bak* (Bengal); *Khantiya bog* (Assam); *Gent muku konga* (Telugu); *Karandi mukh narai* (Tamil, Tamil Nadu); *Chappai chundan* (Tamil, Sri Lanka); *Handi alawa* (Sinhala).

Size: Domestic duck+. **Field Characters**: A long-necked, long-legged snow-white marsh bird with black legs and a distinctive, large, flat, black-and-yellow spoon-shaped bill. A pale yellowish brown patch on foreneck. A long, full nuchal crest in the breeding season. Sexes alike. Individually, or flocks, at jheels, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Only the one race *major* concerns us though recovery of a bird ringed in Turkey at the mouth of the Indus points to the nominate race being found in our area. **Habits**: Affects marshes and jheels, mudbanks in rivers, and also estuarine mudflats. Feeds actively in the mornings and evenings. A flock wades into shallow water and with outstretched necks and obliquely held partly open bills the birds move forward sweeping in a half circle from side to side and raking up the bottom mud with the tip of the lower mandible. **Food**: Tadpoles, frogs, molluscs, insects and vegetable matter. Flight rather slow, with steady wing beats, neck and legs extended. Flocks fly in V-formation or in diagonal single lines. A low grunt and a clattering of the mandibles are the only sounds uttered. **Nesting**: *Season* — between July and November, later in S. India, varying with monsoon conditions. *Nest* — rather massive stick platforms amongst a mixed heronry on trees standing in or near water. *Eggs* — 4, sullied white, sparingly spotted and blotched with deep reddish brown.

41. **Flamingo** *Phoenicopterus roseus* Pallas

ACN: Greater Flamingo

Plate 6

Syn. No. 73

Local names: *Bog hans, Raj hans* (Hindi); *Kanmunthi, Kanthuti* (Bengal); *Charaj baggo* (Mirshikars, Bihar); *Pu konga, Samudrapu chiluka* (Telugu); *Pun narai, Urian* (Tamil); *Siyak karaya* (Sinhala); *Lakka, Lakke jani* (Sind); *Hanj pakkhi* (Kutch).

Size: Domestic goose; standing about 125 cm high. **Field Characters**: A long-legged, long-necked rosy white stork-like bird, with a heavy pink bill turned down at an angle ('broken') from about half its length. Sexes alike. In flight the long outstretched legs and neck, and the black-bordered brilliant scarlet wings are diagnostic. Parties, or flocks, at shallow jheels, tidal mudflats, etc. **Distribution**: Capriciously throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka. Not Myanmar. Resident, sporadic and locally and extralimitally migratory — an Iran ringed individual recovered at Thanjavur in S. India. **Habits**: Affects jheels, lagoons, salt pans, estuaries, etc. Feeds in shallow water with the slender neck bent down between the legs and head completely submerged. The curious bill is inverted so that the ridge of the culmen scrapes the ground. The upper mandible thus forms a hollow scoop into which the churned up liquid bottom mud is collected and strained by means of the lamellae and the fleshy tongue, sifting the minute food particles.

Food: Crustaceans, worms, insect larvae, seeds of marsh plants, and organic ooze. **Call**: A loud goose-like honk; a constant babbling uttered while feeding in company. Flocks fly in V-formation, in diagonal wavy ribbons, or in single file. **Nesting**: *Season* — in the Great Rann of Kutch depending upon the requisite shallowness of water on the nesting ground; September/October, February to April. *Nest* — a truncated conical mound of hard sun-baked mud 15 to 30 cm in height with a slight pan-like depression at top. Built in hundreds close to one another in a compact, expansive 'city'. *Eggs* — 1 or 2, white with a faint bluish tinge.

42. **Lesser Flamingo** *Phoeniconaias minor* (Geoffroy)

Plate 6

Syn. No.74

Local name: *Chhota rajhans* (Hindi).

Size: Standing *c*. 90-105 cm (3' - 3.5') to top of head. **Field Characters**: Upper mandible not overlapping lower. Bill dark coloured with crimson feathers around its base. Plumage darker rose-pink than in the flamingo. Size smaller. Crimson-and-black underwings, shorter trailing legs in flight diagnostic. **Distribution**: Post-breeding movement largely erratic. Seen in the Little Rann of Kutch, Gujarat, Sambhar Salt Lake (Rajasthan), Point Calimere (Tamil Nadu); Chilka Lake (Orissa) and strays in various inland waterspreads. **Habits**: Gregarious, often in large concentrations in mixed flocks with the Flamingo, but prefers highly saturated brine areas. **Food**: Phytoplankton (algae, diatoms, etc.). **Nesting**: *Season* — June to July, probably extending into January-February the following year. *Nest* — similar to that of the large Flamingo. Breeds in the Great Rann of Kutch and in large numbers in East Africa.

43. **Greylag Goose** *Anser anser* (Linnaeus)

Plate 7

Syn. No. 81

Local name: *Raj hans* (Hindi, Bengali, NE. hill states).

Size: Domestic goose±. **Field Characters**: Similar to brown phase of domestic goose. Grey rump and white nail to the flesh pink bill distinctive. **Distribution**: Winter visitor to northern India, uncommon to rare in the south; Pakistan; Bangladesh; Sri Lanka (once). **Habits**: Gregarious, in large flocks in jheels, rivers, etc., where they rest during the day and feed at night on agricultural fields and wet meadows. Occasionally indulge in spectacular aerobatics. **Call**: A far-reaching *aahng-ung-ung* in flight and a conversational *gay-gay-gay* while feeding. **Food**: Vegetarian, grass and winter crops, aquatic weeds and tubers. **Nesting**: Extralimital - Asia Minor to Central Asia. Believed to be the ancestor of all our domestic breeds.

44. **Barheaded Goose** *Anser indicus* (Latham)

Plate 7

Syn. No.82

Local names: *Hans, Raj hans, Kareyee hans, Birwa, Sawan* (Hindi); *Badi hans* (Bengal, Chittagong); *Karhanch, Mogli* (Mirshikars, Bihar); *Girwa, Paria* (Nepal); *Nangpa* (Ladakh); *Neer vathoo* (Coimbatore, T.N.); *Bornooria hans, Boga rajhans* (Assam); *Kang nga* (Manipur).

Size: Domestic goose±. **Field Characters**: A grey, brownish and white goose, with white head and sides of neck, and two distinctive broad black bars across nape. Sexes alike. Gaggles, on rivers and jheels, and about young winter cultivation. **Distribution**: In winter throughout

northern and NE. India; rare in central India, straggling as far south as Point Calimere, Tamil Nadu. Bangladesh; Pakistan; Myanmar. **Habits**: Arrives about October; departs by mid-March. Rather crepuscular and nocturnal. Congregates in large gaggles when grazing in young gram fields, or when resting during the daytime on sandbanks in the middle of large rivers. Usually excessively wary and difficult to circumvent. Skeins flight in V-formation or in straight ribbons over a wide front to and from their feeding grounds. **Food**: Chiefly green shoots of winter crops such as wheat or gram. **Call**: A musical *aang, aang*. Produced in varying keys by skein after skein going over, it is one of the most unforgettable and exhilarating sounds to the wildfowler. **Nesting**: *Season* — in the nearest breeding localities to us, Ladakh and Tibet April to June. *Nest* — a depression in lush herbage bordering the high altitude lakes, thickly lined with down and feathers. *Eggs* — 3 or 4, ivory white.

45. **Lesser Whistling Teal** *Dendrocygna javanica* (Horsfield)

Plate 8

Syn. No. 88

Local names: *Seelhi, Seelkahi* (Hindi); *Sharal* (Bengali); *Horali* (Assamese); *Tingi* (Manipuri); *Nanisisoti* (Gujarati); *Chilli Thara* (Tamil); *Yeranda* (Malayalam).

Size: Domestic duck-. **Field Characters**: A small pale brown and maroon-chestnut coloured duck confusable with no other of the same size except the rarer Large Whistling Teal (*D. bicolor*). Uniformly chestnut upper tail-coverts distinguish it from the latter in which they are creamy white. Sexes alike. Feeble, flapping, Jaçana-like flight accompanied by the constantly uttered shrill whistling notes proclaim its identity. Small flocks on vegetation-covered tanks. **Distribution**: Resident more or less throughout the Indian Union; Bangladesh; Pakistan; Nepal (terai), Sri Lanka; Andaman and Nicobar islands. Subject to local movements influenced by drought and floods. **Habits**: Rests on weed-covered tanks during daytime, flighting to flooded rice fields, etc., to feed during the night. Walks well on marshland, often grazing like a goose, and is a good diver. Perches freely in trees. **Food**: Largely vegetarian — shoots and grain — but also eats small fish, snails, etc. **Call**: A shrill wheezy, whistling *seasick, seasick*, uttered on the wing. **Nesting**: *Season* — chiefly the monsoon, June to October; in Sri Lanka, also December-January. *Nest* — normally a natural tree-hollow lined with twigs and grass; sometimes built on the ground among reeds. *Eggs* — 7 to 12, ivory white. Both sexes incubate and lead the young.

46. **Large Whistling Teal** *Dendrocygna bicolor* (Vieillot)

ACN: Fulvous Whistling Teal

Plate 8

Syn. No. 89

Local name: *Bada sharal* (Bengali).

Size: Domestic duck-. **Field Characters**: Distinguished from the Lesser Whistling Teal by its larger size, creamy white upper tail-coverts, a black line down the back of the neck and a broad, diffuse rusty whitish collar round mid-foreneck. Sexes alike. **Distribution**: Resident, uncommon. Deccan northwards, eastern India. Pakistan; Nepal; Bangladesh; Sri Lanka (straggler). Widely distributed in both hemispheres. **Habits**: In small flocks in jheels and

tanks in the plains. **Call**: A shrill whistle. **Food**: Omnivorous but largely vegetarian. **Nesting**: *Season* — July to August. *Nest* — a rude collection of sticks in a tree hollow or fork. Often uses abandoned nests of other birds. *Eggs* — 6 to 8, ivory white. Little information on breeding habits.

47. **Ruddy Shelduck** or **Brahminy Duck**
Tadorna ferruginea (Pallas)

Plate 7

Syn. No. 90

Local names: *Chakwa, chakwi, Surkhab, Lal* (Hindi); *Mungh, Lalo, Kwancha, Kathium* (Sind); *Chaka-chaki* (Bengal); *Ramkaon, Chakoi-chakoua* (Assam); *Kesar pandia, Panda hansa* (Orissa); *Sarza, Chakrawak* (Marathi); *Bapana chiluwa* (Telugu); *Loku seruva* (Sinhala).

Size: Domestic duck+. **Field Characters**: A large orange-brown duck with paler head and neck and sometimes a faint black collar at its base. Wings white, black and glistening green. Tail black. *Female* similar, but lacking the black collar and with much paler (almost whitish) head. Pairs or parties, at open tanks and on shingle banks in rivers. **Distribution**: In winter throughout the Indian Union; rare in extreme S. India; Bangladesh; Pakistan; Sri Lanka (occasional); Myanmar. **Habits**: Oftener seen on mudspits and sandbanks than actually on water. Walks well and with ease, and grazes like a goose at water's edge. **Food**: Vegetable matter, molluscs, crustaceans, aquatic insects, fish and reptiles. Occasionally said also to eat carrion in company with vultures. Seldom shot by sportsmen, but nevertheless is amongst the wariest and most vigilant of our ducks. **Call**: A nasal *aang, aang*, rather like a Barheaded Goose's honking in the distance, and also reminiscent of the cries of the Black Ibis. **Nesting**: *Season* — in Ladakh, Nepal and Tibet, its nearest nesting grounds, April to June. *Nest* — a thick pad of down feathers in holes in cliffs or even in a building, often at a considerable distance and height from water. *Eggs* — 6 to 10, pearly white, smooth textured.

48. **Common Shelduck** *Tadorna tadorna* (Linnaeus)

Plate 7

Syn. No. 91

Local names: *Shah chakwa* (Hindi); *Shah chaka* (Bengali).

Size: Domestic duck±. **Field Characters**: A strikingly coloured duck chiefly white, black and chestnut, with a distinctive bright red upturned bill and pink legs. **Distribution**: Casual and uncommon winter visitor to northern and eastern India, south to the Deccan. Pakistan; Nepal; Bangladesh; Myanmar. **Habits**: More gregarious than the Brahminy. Likely to be seen on the larger lakes and rivers. Usually keeps to mudflats than water. **Food**: Omnivorous, molluscs, algae, seeds, etc. **Nesting**: Europe, Central Asia and Siberia.

49. **Marbled Teal** *Marmaronetta angustirostris* (Menetries)

Plate 8

Syn. No. 92

Local name: Not recorded.

Size: Domestic duck-. **Field Characters**: Predominantly greyish brown spotted or marbled with pale greyish buff or black above. A large brown patch from eye to nape. A small nuchal crest, speculum dull brown, not metallic. Dull white below, transversely barred

with brown. Sexes alike. **Distribution**: Uncommon winter visitor to N. and NE. India, Rajasthan and Pune (Maharashtra) in the south. Breeds in Pakistan. **Habits**: In pairs or small parties in vegetation covered jheels, etc. **Food**: Omnivorous but largely vegetarian. Feeds while swimming. **Call**: Male's call described as a squeaking whistle. **Nesting**: *Season* — May-June. *Nest* — a pad of rushes and weeds, concealed in vegetation. **Eggs** — 9 to 12, pale creamy, oval in shape.

50. **Pintail** *Anas acuta* Linnaeus

Plate 8

Syn. No. 93

Local names: *Sand, Seenkh-par* (Hindi); *Kokarali, Drigosh* (Sind); *Dhruguchho* (Kutch); *Dig hans, Bada digar, Sholoncho* (Bengal); *Dighonch* (Mirshikars, Bihar); *Digunch* (Nepal); *Nanda, Nanja* (Orissa); *Markalian* (Tamil); *Nejal hans, Dighal negi* (Assam); *Daophlantu loubi* (Cachar); *Meitunga* (Manipur).

Size: Domestic duck-. **Field Characters**: *Drake*: Upper plumage pencilled grey. Head chocolate, with a white band on either side running down into the white neck and underparts. Long, pointed pin-like feathers projecting well beyond the tail, usually sufficiently diagnostic. *Duck*: mottled brown and buff with characteristic elongated body and tapering tail, but without the pins. Differs from female Gadwall by absence of white in the wing; from female Mallard in lacking the bright wing-speculum. Pairs, or flocks, on reed-fringed vegetation-covered jheels. **Distribution**: In winter throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: One of our commonest migrant ducks. Amongst the first species to rise out of gunshot after shooting has commenced on a jheel, as if conscious of the esteem it enjoys as a sporting and table bird. Largely vegetarian in its food preferences. Grubs in squelchy mud in inundated cultivation and on grassy tank margins. Also 'up-ends' in shallow water. **Nesting**: *Season* — in the Palaearctic Region (Europe, N. and C. Asia) May to July. *Nest* — a depression in grass in open marshy grassland, compactly lined with rushes and down feathers. *Eggs* — 7 to 12, pale sea-green with a buffish tinge. Ringed birds have lived for over 11 years.

51. **Common Teal** *Anas crecca* Linnaeus

Plate 8

Syn. No. 94

Local names: *Chhoti murghabi, Kerra, Lohiya kerra, Chowtee, Patari, Souchuruka* (Hindi), *Naroib, Patari hans, Tulsibigri* (Bengal); *Baijla* (Mirshikars, Bihar); *Baijila gairi* (Nepal); *Kardo* (Sind); *Chakrang* (Marathi); *Siravi, Kilawai* (Tamil); *Yeranda* (Malayalam); *Solari hakki* (Kannada); *Kalimari, Chila hans, Patari hans* (Assam); *Daophlantu kashiba* (Cachari); *Seruwa* (Sinhala); *Surit* (Manipur).

Size: Domestic duck-; Cotton Teal+. **Field Characters**: *Male* pencilled greyish, with chestnut head and a broad metallic green band running backward from eye to nape, bordered above and below by whitish lines. A tricoloured wing speculum — black, green, and buff — particularly conspicuous in flight. *Female* mottled dark and light brown, with pale underparts and black and green speculum. Flocks on tanks, jheels and marshes, etc. **Distribution**: In winter throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka;

Myanmar. **Habits**: Perhaps our commonest migratory duck, and an excellent sporting bird, swift on the wing and good for the table. Largely vegetarian in its diet, grubbing for grain and tender shoots of rice and marsh plants in the squelchy mud of inundated paddy fields and grassy tank margins. Also 'up-ends' in shallow water. **Call**: A low toned *krit* uttered by the drake, and a subdued wheezy quack by the duck. **Nesting**: *Season* — in the Palaearctic Region (northern Europe to E. Siberia) April to June. *Nest* — of reeds, rushes, etc., lined with down, on the edge of swamps. *Eggs* —7 to 10, cream coloured, with a glossy texture.

52. **Spotbill** or **Grey Duck** *Anas poecilorhyncha* J.R. Forster

Plate 8

Syn. No. 97

Local names: *Garm-pai, Gugral* (Hindi); *Hanjar* (Sind); *Laddim* (Mirshikars, Bihar); *Naddum* (Nepal terai); *Kara* (Manipur); *Bor mughi hans* (Assam).

Size: Domestic duck. **Field Characters**: The large size, scaly patterned light and dark brown plumage, and the white and metallic green wing-bar or speculum are leading pointers. Bright orange-red legs, yellow-tipped dark bill with 2 orange-red spots at its base (one on either side of the forehead), confirm the diagnosis. Sexes alike. Pairs, or small flocks on jheels. **Distribution**: Throughout the Indian Union, Andaman (once); Bangladesh; Pakistan; Sri Lanka (rare); Myanmar. Resident and locally migratory. Three races, of which the typical *poecilorhyncha* mainly concerns us. **Habits**: One of our most widely distributed resident ducks, but nowhere really abundant. It is among the species that seem fully conscious of their good qualities as sporting and edible birds, and one of the first to make itself scarce when gunfire commences on a jheel. **Food**: Chiefly vegetable matter. A surface feeder, obtaining its food chiefly by tipping or 'up-ending' in shallow water. When reaching down for food thus, the tail end of the bird sticks out comically above the surface, the vertical stance being maintained by a kicking of the legs. **Call**: A hoarse wheezy note by the drake, and a loud quack by the duck, particularly when suddenly alarmed. Very silent on the whole. **Nesting**: *Season* — not rigidly defined; chiefly July to September (SW. monsoon). *Nest* — a pad of grass and weeds amongst herbage on marshy margins of tanks. *Eggs* — 6 to 12, greyish buff or greenish white.

53. **Burmese Spotbill** *Anas poecilorhyncha haringtoni* (Oates)

Plate 8

Syn. No. 98

Local name: *Bor Mughi Hans* (Assamese).

Size: Domestic duck. **Field Characters**: Identical to the Indian spotbill but slightly smaller, underparts less spotty. Red dots on base of bill absent or very small. **Distribution**: Eastern Assam eastward to Myanmar. **Habits**: Similar to the Indian race. **Nesting**: As of the Indian race. *Season* — from February to July.

54. **Mallard** *Anas platyrhynchos* Linnaeus

Plate 9

Syn. No. 100

Local names: *Nilsir, Nir rugi* (Hindi); *Nilsir* (Bengal); *Lilgeh* (Mirshikars, Bihar); *Lilg, Lilgahi* (Nepal); *Amrolia hans, Bonaria pati hans* (Assam); *Niragi, Hiragi, Niragiani* (Sind); *But, Raje* (Kutch).

Size: Domestic duck. **Field Characters**: *Drake* largely grey above and below, finely pencilled and vermiculated with black. Glistening dark green head and neck separated from chestnut breast by narrow white collar. Rump, tail-coverts, and two upcurled central tail feathers black. Metallic purplish blue 'mirror' on wing bordered in front and behind by black and white lines, conspicuous in flight. Yellowish green bill; orange legs. *Duck* (and drake in eclipse plumage): brown and buff, streaked and spotted with black. Orange legs. Distinguished from the very similar female Shoveller also orange-legged, by bill shape and *purple* speculum (as against green). Parties or flocks on reedy shallow jheels. **Distribution**: Winter visitor. Common in Pakistan and NW. India; less common or rare east to NE. India; south to Bombay; Bangladesh; Myanmar. Breeds in the Palaearctic region; sparingly in Kashmir and Nepal. **Habits**: A typical surface-feeding or dabbling duck, the ancestor of all our domestic breeds; largely vegetarian. Dabbles for food as it walks about on a marsh, or tips ('up-ends') in water with forepart of body submerged, tail sticking comically skyward. A fast flier, excellent for the table, and much sought after by sportsmen. **Call**: Of drake normally a wheezy murmur; of duck a loud *quack-quack*, especially when alarmed and rising, almost vertically, off the water. **Nesting**: *Season* — in Kashmir, May/June. *Nest* — a pad of rushes and weeds thickly lined with down, under a bush or grass clump near edge of lake. *Eggs* — 6 to 10, greenish grey to yellowish stone.

55. **Gadwall** *Anas strepera* Linnaeus

Plate 9

Syn. No. 101

Local names: *Myla, Bhuar, Beykhur* (Hindi); *Peeing hans* (Bengal); *Myle* (Mirshikars of Bihar; Nepal); *Burd, Buari, Buhar* (Sind); *Saru mugi hans* (Assam); *Thoidingnam* (= 'sesamum-flavoured', Manipur).

Size: Domestic duck-. **Field Characters**: General effect of *drake* dark brown and grey, with whitish belly and very black tail end. A glistening white patch on trailing edge of wing, broadly bordered in front with black, conspicuous in flight. At rest a chestnut patch in front of the black-and-white speculum is a good pointer. *Duck* dark brown mottled with buff, a duller and slightly smaller edition of the Mallard, also with yellow legs. Diagnosed in flight by white wing mirror as in drake, though at rest this is usually concealed. Parties and flocks on shallow, reedy jheels and marshes. **Distribution**: Winter visitor. Perhaps one of our commonest and locally abundant migratory wildfowl, particularly in Pakistan and N. India. Less common in peninsular India; vagrant in Sri Lanka. Breeds in sub-arctic northern Europe and Asia. Also at Rungla Dhand, Punjab Province, Pakistan. **Habits**: Keeps in parties or flocks in association with other ducks on suitable waters. A mixed surface feeder like the Mallard, largely vegetarian, and also possessing the same good qualities as a sporting bird and for the table. A number of call notes have been described, but it is a very silent bird in its winter quarters.

56. **Falcated Teal** *Anas falcata* Georgi

Plate 9

Syn. No. 102

Local name: *Kata sinkhur* (Hindi).

Size: Domestic duck-. **Field Characters**: *Male* in breeding plumage, singularly beautiful. Head metallic bronze green and chestnut-purple with bushy mane-like nuchal crest. Throat and foreneck white with a narrow green collar at base. Body grey, pencilled wavily with black. Speculum glistening black and green with a grey band in front. Inner secondaries velvety black, white and grey, very long and sickle-shaped cover the back and tail. *Female*: Dark brown, with grey wings, black and green speculum, a short nuchal crest and grey legs. **Distribution**: Rare and uncommon winter visitor to NE. India and a straggler in the north of the Sub-Continent up to Pakistan. **Habits**: Singly or in pairs on jheels. **Food** largely vegetarian. **Call** not recorded in India. In the breeding distribution the male has a loud piercing whistle. The female quacks. **Nesting**: Extralimital. *Nest* — a pad of rush or seeds heavily lined with down. *Eggs* — 6 to 10.

57. **Wigeon** *Anas penelope* Linnaeus

Plate 9

Syn. No. 103

Local names: *Peasan, Patari, Pharia, Chhota lal-sir* (Hindi); *Chhota lalsir* (Bengal); *Aroon* (Mirshikars, Bihar); *Cheyun* (Nepal); *Pharao* (Sind; Gujarat, Nal Sarovar); *Khaltriya kunda* (Assam); *Thanggongmal* (= 'like the Brahminy', referring to the drake's ruddy head, Manipur).

Size: Domestic duck-; about same as Gadwall. **Field Characters**: General aspect of *drake* grey. The chestnut head with cream coloured patch on forecrown, brownish pink breast, black tail-coverts, large horizontal white patch on closed wing, and small narrow blue-grey bill, are diagnostic points. In flight a broad white shoulder-patch near leading edge of wing, and the whitish 'bald' forecrown, are conspicuous. *Duck* like female gadwall but with speculum of different pattern (not contrasty black-and-white), and small blue bill like drake's. Flocks on shallow, reedy jheels and marshes. **Distribution**: Winter visitor. Common in Pakistan and N. India; locally abundant in some years. Less common in peninsular and E. and NE. India; Bangladesh and in Myanmar; numbers increasing in recent years where it was once sparse and irregular in Sri Lanka. Breeds in the northern Palaearctic Region. **Habits**: Frequents shallow grassy jheels and marshes. A mixed surface feeder, largely vegetarian. Besides up-ending in shallow water for food, is often seen walking about on marshes grazing on grass shoots and aquatic weeds in the manner of geese. A swift and powerful flier, with a peculiar rustling sound of wings. Like other coveted sporting ducks, e.g. mallard, pintail and gadwall, is usually amongst the first species to climb high and get well out of gunshot soon after firing has commenced on a jheel. A shrill pipe or whistle is uttered in flight as well as on the ground and when swimming.

58. **Garganey** or **Bluewinged Teal** *Anas querquedula* Linnaeus

Plate 9

Syn. No. 104

Local names: *Chaita, Khira, Patari* (Hindi); *Ghang roib, Giria hans* (Bengal); *Ghila hans* (Assam); *Charho, Kardo, Kararo* (Sind); *Kardio* (Gujarat, Nal Sarovar); *Gendu* (Orissa — most duck); *Surit angouba* (= 'white teal', Manipur).

Size: Domestic duck-; Common Teal+. **Field Characters**: *Drake* recognisable by his pink-brown white-speckled head, with conspicuous broad white eyebrows, and bluish grey on wing and shoulders. *Duck* closely resembles female Teal but is paler. In flight, her very indistinct speculum as compared with the Teal's is suggestive. At close range the pure white throat (instead of brown-speckled) and the prominent superciliary stripe distinguish her. Flocks on grassy jheels, etc. **Distribution**: In winter throughout the Indian Union, Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Along with the Common Teal, one of our earliest migrants, commencing to arrive by August. Very similar to it in habits. Also a swift flier and a good sporting and table bird. **Food**: Largely vegetarian. **Nesting**: *Season* — in the Palaearctic Region (N. Europe to E. Siberia). May/June. *Nest* — a depression in the grass in wet meadows, sometimes lined with a layer of finer grasses but always with plenty of down feathers. *Eggs* — 6 to 12, buffy white with a glossy texture.

59. **Shoveller** *Anas clypeata* Linnaeus

Plate 9

Syn. No. 105

Local names: *Tidari, Punana, Tokarwala, Ghirah* (Hindi); *Panta mukhi, Khunte hans* (Bengal); *Sankhar* (Mirshikars, Bihar); *Dho baha, Sankhar, Khikeria sankhar* (Nepal); *Alipat, Gaino, Langho* (Sind); *Gaino* (Gujarat, Nal Sarovar); *Phatphaje* (Kutch); *Khantiya hans, Nak dungara* (Assam); *Seruwa* (Sinhala); *Mattimikh cherevi* (Tamil); *Khara* (Manipur).

Size: Domestic duck-. **Field Characters**: *Drake*: head and neck glossy dark green; breast white, rest of underparts mostly chestnut. Pale blue on forewing, with a white bar between it and the metallic green speculum. *Duck*: mottled dark brown and buff, with greyish blue on wings, green speculum, and conspicuous bright orange bill (at base). Broadened shovel-shaped bill and orange legs diagnostic in both sexes. Parties, and small flocks, on jheels, irrigation reservoirs, village tanks, etc. **Distribution**: In winter throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Another of the more common migratory ducks visiting us in winter, and amongst the last to leave. The peculiar spatulate bill is adapted to its special method of feeding. Swims with neck and bill stretched rigidly in front, the lower mandible immersed and furrowing the water while the upper is exposed and skims flat along the surface. The minute food particles so collected are strained out by means of the comb-tooth edges of the bill. Occasionally also tips or 'up ends' in shallow water. **Food**: Largely animal matter. It is not exacting in its food preferences, and therefore its flesh is usually rank and unpalatable. But in flight and other respects it is a good sporting bird. **Nesting**: *Season* — in the Palaearctic Region (N. Europe, etc.) April to June. *Nest* — a pad of grass and rushes, on marshes, etc. *Eggs* — 7 to 16, pale stone or buff, sometimes with a greenish tinge. Also reported breeding at Rungla Dhand, Punjab Province, Pakistan, in recent years.

60. **Pinkheaded Duck** *Rhodonessa caryophyllacea* (Latham)

Plate 9

Syn. No. 106

Local names: *Gulab-sir, Lal sira* (Hindi); *Lal sir, Saknal* (Bengal); *Damrar, Dumar* (Nepal terai and Tirhut).

Size: Domestic duck±. **Field Characters**: *Drake*: blackish brown above and below with a pinkish buff speculum prominent in flight. Partially tufted bright pink head, and bill — the colour of new blotting paper. Underside or wings pale shell pink. *Duck*: above and below dull brown with pale brownish buff speculum. Head suffused with bright pink but the pink area not sharply demarcated as in drake. Long thin neck and gradual slope of forehead rather reminiscent of Whistling Teal. Pairs and small flocks 'from 8 to 30 or even 40' on wooded jheels. **Distribution**: The swampy jungles of the Himalayan terai and duars from Nepal to NE. hill states: Bangladesh; Myanmar(?). Obtained as far south as Nellore (Andhra) and Jalna (Maharashtra). Last authentic record from Darbhanga district, Bihar, June 1935. Apparently never common or abundant, but was occasionally seen amongst sportsmen's bags of wildfowl. Reduction in numbers noticed as early as 1878 although until about 1890 a half dozen or so still turned up in Calcutta bird market every season. Since 1956 its killing or capturing is totally banned by law, but possibly the bird is already extinct. **Habits**: Resident and local wanderer. In captivity, observed to behave like dabbling ducks, not diving for its food. **Nesting**: Formerly bred in swampy dense forests amongst tall grass areas. *Season* — recorded as May to July. *Nest* — a round pad of grass on ground, well concealed. *Eggs* — 5 to 10, roundish, smooth, ivory white.

61. **Redcrested Pochard** *Netta rufina* (Pallas)

Plate 9

Syn. No. 107

Local names: *Lal-chonch, Lal-sir* (Hindi); *Bada rangamuri, Hero hans, Chobra hans* (Bengal); *Doommer* (Mirshikars, Bihar); *Dumar, Sanwa* (Nepal); *Batsha, Rutabo* (Sind); *Ratobari* (Gujarat, Nal Sarovar); *Deo hans* (Assam); *Irupi* (= 'diver' — all pochards, Manipur).

Size: Domestic duck±. **Field Characters**: *Drake*: Head and fluffy, full, mop-like crest rich chestnut and golden orange, with bright crimson bill. Upperparts light brown with white patches on shoulders, and white wing-mirror. Lower plumage black; flanks white. In flight, red head and bill, black body, white flanks, white underside of wing and the broad white bar on its trailing edge above, provide satisfactory identification. *Duck*: dull sooty brown above, largely whitish below, with dark brown crown and nape sharply demarcated from whitish face and foreneck. A whitish speculum. Identifying unaccompanied female needs practice. Flocks on vegetation-covered tanks and jheels. **Distribution**: Winter visitor. Common and locally abundant in Pakistan and N. India, decreasingly so in the Peninsula. Not found south of Madras or in Sri Lanka. Sparingly in Myanmar. Breeds in the southern Palaearctic Region, nearest in Baluchistan. **Habits**: A diving duck though commonly feeding on the surface, dabbling and up-ending like the Gadwall or Mallard. **Food**: Shoots and roots of water plants, molluscs, crustaceans, insects, etc. Very silent in its winter quarters, and on the whole wary.

Since this species is often mistaken for and reported as the rare and virtually extinct Pinkheaded Duck, particular attention is invited from birdwatchers and sportsmen to the diagnoses of the two.

62. **Common Pochard** *Aythya ferina* (Linnaeus)

Plate 10

Syn. No. 108

Local names: *Lal seer* (Hindi); *Lal muri* (Bengali); *Ranga muriya* (Assamese); *Irupi* (Manipuri); *Tarandio* (Gujarati).

Size: Domestic duck-. **Field Characters**: Base and tip of bill black, pale plumbeous to slate blue in between. Absence of white wing-bar which is dull grey distinguishes both sexes from other pochards. *Drake* (breeding) - Head and neck chestnut-red; upper back and breast black otherwise back light grey vermiculated with black. Rump and tail-coverts black, ventrally and sides greyish white. Speculum dull grey. *Duck* rufous-brown on head, neck, upper back and breast, otherwise greyish brown with faint vermiculation on back and scapular cheeks, throat and base of bill buff. **Distribution**: Common winter visitor, abundant in the north, less so in east and south India down to Pondicherry. **Habits**: One of the commonest diving ducks. Seen in large flocks and rafts of over 300 to several thousands in the open waters of jheels and reservoirs with submerged vegetation. **Food**: Omnivorous but largely vegetarian. **Nesting**: Extralimital. British Isles to Siberia. In recent years reported to breed in Pakistan (Rungla Dhand, Punjab).

63. **White-eyed Pochard** *Aythya nyroca* (Guldenstadt)

ACN: Ferruginous Pochard

Plate 10

Syn. No. 109

Local names: *Kurchiya, Burar mada* (Hindi); *Lal bigri, Bhuti hans* (Bengal); *Burnu, Burino* (Sind); *Tamni* (Gujarat, Nal Sarovar); *Malak* (Nepal terai); *Kali muri* (Assam); *Irupi* (Manipur).

Size: Domestic duck-. **Field Characters**: In general aspect rufous-brown and blackish brown, with a whitish wing-bar conspicuous in flight. When overhead, the abdomen seen as an oval white patch is diagnostic. *Female* duller coloured. Iris white in adult male; brown in female and young male. Flocks on jheels, irrigation tanks, coastal lagoons, etc. **Distribution**: In winter practically throughout the Indian Union, Pakistan and Bangladesh. The allied Baer's Pochard (*A. baeri*) uncommonly winters in W. Bengal, Nepal, NE. states, Bangladesh, Myanmar. **Habits**: Perhaps the most widespread and abundant of our migratory ducks. Frequents every type of water. Rests during the day in the middle of open irrigation tanks, etc., or on the sea beyond the surf zone, safe from human molestation, and flights inland after dusk to feed in inundated paddy fields and on grassy tank margins. Also obtains much of its food by diving. **Food**: Vegetable matter, insects, molluscs, small fish, etc. Swift on the wing and a good sporting bird, but on the whole poor eating. **Call**: A harsh *koor-ker-ker.* **Nesting**: *Season* — in Kashmir, the only breeding locality within Indian limits. May/June. *Nest* — a pad of rushes lined with finer grasses and a thick layer of down feathers. Built amongst reeds close to water. *Eggs* — 6 to 10, pale buff.

64. **Tufted Pochard** *Aythya fuligula* (Linnaeus)

ACN: Tufted Duck

Plate 10

Syn. No. 111

Local names: *Dubaru, Ablak, Rahwara* (Hindi); *Turando, Runharo* (Sind); *Kalwelio* (Gujarat, Nal Sarovar); *Malak* (Nepal terai); *Kurungalian* (Tamil); *Nalla chiluwa* (Telugu); *Bamuniya hans* (Bengal, Assam).

Size: Domestic duck-; about same as Gadwall. **Field Characters**: The boldly contrasting black-and-white plumage of the *drake*, and the limp occipital tuft, prominent when seen in profile, simplify identification at rest. In flight a broad white band along trailing edge of wing, in both sexes, provides a further clue. *Duck* dark brown where drake black, with no tuft and less white in lower plumage. Parties or small flocks on reed-fringed jheels and open irrigation tanks. **Distribution**: Winter visitor to practically all India; Bangladesh; Pakistan; Myanmar. Rare in Sri Lanka. Breeds in Europe, N. and C. Asia. **Habits**: Along with White-eyed Pochard one of our commonest migratory diving ducks, a group distinguished by the possession of a broadly lobed hind-toe. Legs set far back in the body, ill-adapted for walking but admirably suited for diving and swimming both above and below the surface. Feeds in deep water by diving; hence often seen on open expanses in the middle of jheels and irrigation reservoirs. It can remain submerged for considerable periods, and wounded birds are hard to retrieve, especially from vegetation-covered tanks where they hold on to weeds below the surface. **Food**: Molluscs, crustaceans, water insects, etc. Also water weeds.

65. **Scaup Duck** *Aythya marila* (Linnaeus)

ACN: Greater Scaup

Plate 10

Syn. No. 112

Local names: Not recorded.

Size: Duck-. **Field Characters**: Male in breeding plumage similar to tufted duck but with purple gloss on black and vermiculate pale grey back. No tuft. In eclipse plumage male brown like the female more heavily vermiculated but without the females white facial band and more pronounced white speculum. **Distribution**: Winter straggler to northern and NE. India; south to about 19°N. in the peninsula. Pakistan; Bangladesh; Myanmar. **Habits**: Little known in India, but presumed to resemble those of the Tufted Duck. Seen on freshwater lakes in the subcontinent; elsewhere a sea duck. **Nesting**: Extralimital.

66. **Cotton Teal** *Nettapus coromandelianus* (Gmelin)

ACN: Cotton Pygmy Goose

Plate 10

Syn. No. 114

Local names: *Girri, Girria, Girja* (Hindi); *Gurgura* (Etawah); *Bali hans* (Bengal); *Bhullia hans* (Bangladesh); *Dandana* (Orissa); *Ade, Atla* (Ratnagiri); *Naher, Keeke, Chuwa* (Nowgong, Assam); *Baher, Kararhi* (Sind).

Size: Pigeon+. **Field Characters**: The smallest of our wild ducks, white predominating in plumage. Bill short, deep at base, and goose-like. *Male* glossy blackish above, with white head, neck, and underparts; a prominent black collar and white wing-bar. *Female* paler, without either. In non-breeding plumage male resembles female except for his white wing-bar. Flocks on jheels, etc. **Distribution**: Practically throughout the Indian Union; Pakistan; Bangladesh; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Found on all inland waters — jheels, rain-filled ditches, inundated paddy fields, irrigation tanks, etc. Becomes very tame on village tanks wherever it is unmolested and has become inured to human proximity. Swift on the wing, and can dive creditably on occasion. **Call**: A peculiar clucking, uttered in flight. **Food**: Chiefly vegetable matter; also insects, crustaceans, etc. **Nesting**: *Season* — July to September (SW. monsoon). *Nest* — a natural hollow in a tree-trunk standing in or near water, sometimes lined with grass, rubbish and feathers. *Eggs* — 6 to 12, ivory white.

67. **Nakta** or **Comb Duck** *Sarkidiornis melanotos* (Pennant)

Plate 7

Syn. No. 115

Local name: *Nakta* (Hindi; Bengal); *Nakwa* (Bihar); *Naki hansa* (Orissa); *Juttu chiluwa* (Telugu); *Doda sarle hakki* (Kannada); *Karo hanj* (Sind); *Kabalittya* (Sinhala); *Mookkan thara* (Tamil).

Size: Domestic duck+. **Field Characters**: A large duck, black above glossed with blue and green; white below. Head and neck speckled with black. The swollen knob at base of drake's bill, much enlarged during breeding season, is diagnostic. *Female* similar but much smaller, and minus comb. Small flocks on reedy jheels. **Distribution**: Throughout the Indian Union, south to about Karnataka; Pakistan (patchy and rare); Bangladesh, Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Affects jheels with reeds and floating vegetation interspersed with patches of open water. Walks and dives well and perches freely on boughs of trees. **Food**: Chiefly grain and shoots or wild and cultivated rice and other vegetable matter. Procured chiefly by grazing in squelchy inundated fields or by 'up-ending' in shallow water. Occasionally frogs, aquatic insects, etc. **Call**: A low, grating croak (drake); also a loud *honk* in the breeding season. **Nesting**: *Season* — mainly July to September (SW. monsoon). *Nest* — a natural hollow in a tree trunk standing in water, sometimes with a scanty lining of sticks, grass and leaves. *Eggs* — 8 to 12, pale cream coloured with the texture and appearance of polished ivory. Evidently the female alone incubates.

68. **Whitewinged Wood Duck** *Cairina scutulata* (S. Müller)

Plate 7

Syn. No. 116

Local name: *Deohans* (Assamese).

Size: Domestic duck+. **Field Characters**: *Drake*: Head and neck white speckled with black. Otherwise plumage glossy black and deep chestnut-brown. Speculum bluish grey bordered with black. The large white patch on wing-shoulder seen at rest and in flight along with dark underparts distinguishes it from the nakta. *Duck*: much smaller otherwise similar to the male, legs and feet orange yellow. **Distribution**: Assam, Arunachal Pradesh, Manipur, Bangladesh; Myanmar eastwards. A rare and endangered species in India. **Habits**: Pairs or small parties on jungle ponds in evergreen forests. Perches on trees like the nakta. Flies out at night to open areas to feed and returns to its jungle refuge at dawn. **Food** not recorded in India but probably vegetarian. **Call**: Male's said to be a trumpet-like *cronk cronk*. Female gives a whistling call in flight. **Nesting:** *season* — not recorded. *Nest* — a tree hollow like the naktas. Usually on a tree by a jungle stream. **Miscellaneous**: The species has been bred in captivity at Slimbridge, U.K. and reintroduced into Assam and Arunachal Pradesh.

69. **Smew** *Mergus albellus* Linnaeus

Plate 10

Syn. No. 119

Local name: *Nikenne* (Hindi).

Size: Domestic duck-. **Field Characters**: *Drake*: Largely white with a glossy black eye patch, a black band from behind eye to nape and drooping nuchal crest. Back black with two streaks on each side of the white breast. Sides of body and tail grey. In flight the black-and-white conspicuous. *Duck* has nuchal crest, forehead, crown, and nape chestnut-red contrasting with white throat and sides of head. Back greyish brown. Breast and flanks grey, underparts white. In flight the contrasting chestnut and white head and black-and-white wings diagnostic. Male in eclipse plumage similar to female. **Distribution**: Uncommon winter visitor to north India favouring clear Himalayan streams flowing out of the foothills. Also recorded in N. Gujarat, Orissa, W. Bengal and Assam (proper) in jheels. Pakistan; Nepal but not Bangladesh. **Habits**: Usually in small parties. Fast swimmer and efficient diver and fast flier. **Food**: Largely fish and other aquatic life. **Nesting**: Extralimital.

70. **Goosander** or **Eastern Merganser**
Mergus merganser Linnaeus

Plate 10

Syn. No. 120

Local name: Unrecorded.

Size: Domestic duck±. **Field Characters**: *Drake:* Black on head, crest and neck glossed with metallic green and purple, glossy black scapulars. Tail coverts grey vermiculated with white. Tail silvery brown. Primaries black; white on secondaries, upper coverts, lower neck and ventrally. Ventrally, tinged with salmon pink. *Duck*: Chestnut and cinnamon brown on head, crest and neck. Bluish grey brown above. Primaries black. Chin and throat, secondaries, and underparts white, the secondaries forming a conspicuous white speculum.

In flight, the drake conspicuously black and white; the duck rufous and white with black and white wings. The slender neck, narrow pointed red bill and red legs diagnostic of both. **Distribution**: Winter visitor to northern India, east to Assam proper, south to Maharashtra; Pakistan. Fairly common in the fast flowing rivers of the Himalayan foothills. Also affects large rivers and lakes. Two races - *M. m. orientalis* breeds in Ladakh. **Habits**: Excellent swimmer and diver in the icy east Himalayan torrents. Uncomfortable on land. Usually seen in pairs or small parties but occasionally in large flocks of 40 to 50. Hunts co-operatively, driving fish into the shallows. **Food**: Largely fish. **Nesting**: Mainly extralimital but also in Ladakh at elevations of over *c.* 3000 metres. *Nest* — on rock cliffs, lined with down. *Eggs* — 6 to 10. **Miscellaneous**: The Goosander or Merganser *Mergus merganser merganser* is a winter visitor to western India but the races cannot be distinguished by sight in the field.

71. **Blackwinged Kite** *Elanus caeruleus* (Desfontaines)

Plate 11

Syn. No. 124

Local names: *Kapassi* (Hindi, Bengali); *Masunwa* (Oudh); *Chanwa* (Nepal); *Adavi ramadasu* (Telugu); *Argellur* (Yerkali); *Velli-eriyan* (Malayalam); *Kurulla goya, Ukussa* (Sinhala).

Size: House Crow-; length *c.* 33 cm **Field Characters**: A dainty hawk, ashy grey above, white below, with a black line above the eyes and black patches on shoulders, conspicuous at rest as well as in flight. When closed, the wing tips extend beyond the short, square, white tail. **Distribution**: Patchily throughout the Indian Union from the base of the Himalayas; Nepal; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Rather crepuscular, but also active in daytime, inhabits well-wooded country and cultivation; also thin deciduous forest and grassland. Avoids dense jungle as well as arid plains. Keeps to a favoured locality, perched on the same pole or tree-top from day to day, whence to keep a lookout and pounce upon crawling prey. Cocks tail from time to time, jerking it up and down between the drooping wings. Also hovers in mid-air to scan the ground, and parachutes down in steps with motionless wings raised vertically above the body till when only a few feet above closes them and drops on the quarry, bearing it away in its claws. **Food**: Locusts, crickets, mice, lizards, etc. Flight sluggish; slow deliberate wing strokes alternated with short glides. **Call**: A shrill squeal, seldom heard. **Nesting**: *Season* — practically all year. *Nest* — loose, untidy, crow-like, of twigs sometimes lined with roots and grass, in small trees. *Eggs* — 3 or 4, yellowish white, densely blotched with brownish red. Both sexes share in the domestic duties.

72. **Blyth's Baza** or **Brown Lizard Hawk**

Aviceda jerdoni (Blyth)

ACN: Jerdon's Baza

Plate 11

Syn. No. 125

Local name: None recorded.

Size: Jungle crow. **Field Characters**: Distinctive upstanding narrowly white-tipped black crest. Generally brown, head rufous and black. A prominent black mesial stripe. Rufous and white on chin and throat. Breast rufous-brown. Underparts barred rufous brown and

white. Tail brown with three dark bands, the last the broadest and darkest. **Distribution**: The northern race (*Aviceda jerdoni jerdoni*) from Sikkim, Darjeeling Dist. (West Bengal), eastwards to NE. states; Bangladesh. The southern race (*Aviceda jerdoni ceylonensis*) restricted to the evergreen forests south of lat. 12°N. and Sri Lanka. **Habits** shy, crepuscular, sluggish. Keeps in pairs or family parties of 3 to 5, often seen in forest clearings and on shola edges of hill forests. Still-hunts, pouncing on prey from a look out perch. In the breeding season the pair indulges in spectacular aerobatics accompanied by mewing screams and calls similar to those of the palm squirrel. **Food**: Small animals including lizards, frogs, large insects, etc. **Call**: A loud mewing *peow* given by both sexes while circling in the air. **Nesting**: Season — Northern race, April to June; Southern race, February to April in SW. India; November to May in Sri Lanka. *Nest* — well-made, shallow cup of leafy twigs lined with fresh leaves in leafy trees on humid forests. Eggs — 2 to 3, greyish white. Both sexes share parental duties usually. **Miscellaneous**: Rare and endangered. A completely protected species.

73. **Indian Blackcrested Baza** *Aviceda leuphotes* (Dumont)

ACN: Black Baza

Plate 11

Syn. No. 127

Local name: *Prapparundu* (Malayalam).

Size: Pigeon±. **Field Characters**: A predominantly black and white hawk with a prominent black crest. Overall black above except for conspicuous white and chestnut patches on scapulars and flight feathers. Below black on foreneck, breast, centre of abdomen, vent, and under tail-coverts. A broad white gorget on breast followed by a black (*A.l. syama*) and/or chestnut (*A.l. leuphotes*) band. Lower breast and flanks buffy white barred with chestnut. **Distribution**: Discontinuous. In the Peninsula restricted to the forests of the Western Ghats from south Karnataka to Kerala. Nepal eastwards to NE. hill states, south to Madhya Pradesh; Bangladesh. A third race resident in the Andamans. The migrant winter visitor to Sri Lanka believed to be the eastern race *Aviceda l. syama*. The migratory movement possibly along the Eastern Ghats and Coromandel as witnessed by sight records from Madras and banding records from Pt. Calimere, Tamil Nadu. **Habits**: More or less similar to those of the Brown Baza but larger numbers have been recorded together. **Food**: Mainly small vertebrates and insects, the latter caught on the wing and sized in the feet. **Call**: A plaintive squeal resembling the pariah kite's call or a gull's mewing call. **Nesting**: *Season* — April to June in NE. India. February to July in south India with a peak in March/April. *Nest* — well-made platform of sticks with a central cup lined with grass and fibre, covered with a bed of green leaves, renewed often. *Eggs* — 2 or 3, greyish white. Both sexes share parental duties.

74. **Honey Buzzard** *Pernis ptilorhyncus* (Temminck)

ACN: Oriental Honey

Plate 11

Syn. No. 130

Local names: *Shahutela, Madkare* (Hindi); *Madhava* (Nepal); *Tenu geddu* (Telugu); *Ten parandu* (Tamil); *Jen alawa* (Kannada); *Katta paranthe, Ten kotichi* (Malayalam); *Rajaliya* (Sinhala).

Size: Pariah Kite±. **Field Characters**: Coloration highly variable. A common phase is greyish brown with dark grey head; pale brown below cross-barred with white, short blackish

nuchal crest usually seen in profile. Wings silver grey with close dark barring below. Tail rounded greyish with broad blackish terminal band and median cross bands separated by broad pale bands. Tail pattern also variable. Sexes alike. Resembles Short-toed Eagle in flight but can be separated by slimmer head and longer neck. The silvery grey underside has more dark markings, and usually two blackish bands in tail. **Distribution**: Resident and winter migrant throughout the subcontinent, subject to considerable movements related to food supply. **Habits**: Inhabits well-wooded country and groves in semi-urban areas. Usually seen singly or in pairs, soaring or perched on a tree top. Often roost together. **Food**: Largely honey and bee larvae taken off live combs. Occasionally small birds, reptiles, frogs, insects. **Call**: A single high-pitched screaming whistle. Sometimes uttered at night. **Nesting**: *Season* — April to June except in south India where it is earlier (February). *Nest* — compact platform of sticks lined with leaves. *Eggs* — Normally 2. Colour variable pale cream, buff, freckled, mottled or blotched with reddish or chestnut-brown. Both sexes share parental duties.

75. **Common Pariah Kite** *Milvus migrans* (Boddaert)

ACN: Black Kite

Plate 11

Syn. No. 133

Local names: *Cheel* (Hindi and Bengali); *Kurit* (Santhali); *Il* (Chamba); *Malla gadda* (Telugu); *Paria parandu, Kalu parandu* (Tamil); *Genda* (Mhari); *Rajaliya* (Sinhala); *Chilana, Mugacharani* (Assam); *Chakki parandu* (Malayalam); *Ghar* (Marathi); *Siriun* (Sind).

Size: Vulture-; about 24 in. **Field Characters**: A large brown hawk, distinguished from all similar birds by its forked tail, particularly in overhead flight. Sexes alike. Singly or gregariously, scavenging in towns and villages. **Distribution**: Throughout the Indian Union to about 2500 m in the Himalayas. Nepal; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races chiefly concern us - a resident and a winter migratory race, the latter with a white patch on underside of wings. **Habits**: Our commonest raptor. A confirmed commensal of man and usually found in the neighbourhood of human habitations, whether populated city or outlying hamlet. Remarkably adroit on the wing, turning and twisting, banking and stooping to scoop up scraps from a traffic-congested thoroughfare and avoiding tangles of overhead telephone and electric wires with masterful ease. **Food**: Offal and garbage, earthworms, winged termites, lizards, mice, disabled or young bird, and almost anything else that can be procured. **Call**: A shrill, almost musical whistling *ewe-wir-wir-wir* uttered from a perch as well as on the wing. *Nest* — an untidy platform of twigs, iron wire, tow, rags and rubbish of every description, up in a large tree or on roof or cornice of a building. *Eggs* — 2 or 4, dirty pinkish white, lightly spotted and blotched with reddish brown. Both sexes share in the domestic duties.

76. **Brahminy Kite** *Haliastur indus* (Boddaert)

Plate 11

Syn. No. 135

Local names: *Brahmani cheel, Sankar cheel, Dhobia cheel, Roo mubarak* (Hindi); *Shankha cheel* (Bengal); *Kehe* (Santhali); *Khemankari* (Sanskrit); *Garuda* (Kannada); *Garuda lawa, Garuda mantaru* (Telugu); *Sem parundu, Krishna parunthu* (Tamil); *Shemberid* (Yerkali); *Ranga cheelani* (Assam); *Garudan, Krishna Parundu* (Malayalam); *Pilyo, Rutta okab* (Sind); *Ukussa* (Sinhala).

Size: Pariah Kite±. **Field Characters**: A distinguished-looking raptor, bright rusty red above with white head, neck and breast down to abdomen. Immature birds chocolate-brown; separable from both kite and young Scavenger Vulture by shape of tail which is rounded, not forked or wedged. Sexes alike. Singly, by water — river, jheel or seacoast. **Distribution**: Throughout the Indian Union up to about 2000 m in the Himalayas; Pakistan (Part); Bangladesh; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Keeps invariably to the neighbourhood of rivers, jheels, inundated paddy fields, and fishing villages and harbours on the seacoast. Spreads inland during monsoon for land crabs and frogs in water-logged country. Largely a scavenger in sea ports, picking up scraps and garbage cast overboard ships. **Food**: Offal, fish, frogs, small snakes, bats, etc. Winged-termites emerging from rain-sodden ground are hawked in the air. **Call**: A hoarse, wheezy squeal as of a pariah kite suffering from sore throat. **Nesting**: *Season* — principally December to April. *Nest* — a loose platform of twigs, lined with green leaves, etc., built up in a large peepul, banyan or similar tree growing near water. *Eggs* — 2, greyish white, speckled and blotched with dingy reddish brown. Both sexes share in the domestic duties.

77. **Shikra** *Accipiter badius* (Gmelin)

Plate 11

Syn. No. 138

Local names: *Shikra* - male, *Chipka* or *Cheepak* - female (Hindi and Marathi); *Shikre* (Bengal); *Kuthia* - male, *Tunna* female (Nepal); *Tingkyi* (Lepcha); *U-cham* (Sikkim).

Size: Pigeon±. **Field Characters**: A lightly built hawk, ashy blue-grey above, white below cross-barred with rusty brown. Female browner above, and larger. Immature, brown and rufous above with broad brown vertical streaks on the underside. Tail with broad, blackish cross bands. Singly, or pairs, in lightly-wooded country. **Distribution**: Throughout the Indian Union, up to about 1300 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three races chiefly concern us, differing in size and depth of coloration. **Habits**: Affects open wooded country and avoids heavy forest. Fond of groves of large trees in the neighbourhood of villages and cultivation. From its lookout in a leafy branch it swoops down and carries off its prey before the victim is aware of danger. Flight swift; several rapid wing strokes followed by a glide. Usually flies close to ground, shooting upward to alight on a branch. **Food**: Lizards, mice, squirrels, birds, etc. When feeding its nest-young sometimes becomes an inveterate chicken-lifter from the poultry yard. **Call**: Loud, harsh, challenging; rather like Black Drongo's. **Nesting**: *Season* — principally March to June. *Nest* — an untidy loose platform of twigs, like a crow's nest, lined with grass and roots, high up in a large leafy mango or such like tree. *Eggs* — 3 or 4, bluish white, sometimes faintly speckled and spotted with grey. Both sexes share domestic duties; apparently female alone incubates.

78. **Crested Goshawk** *Accipiter trivirgatus* (Temminck)

Plate 11

Syn. No. 138

Local names: *Gor besra* (Hindi); *Hagrani dooling* (Assamese); *Kokila dega* (Telugu); *Velluru* (Tamil).

Size: House crow±. **Field Characters**: A short-winged hawk, dark brown above with forehead, crown, and nuchal crest blackish grey, tail with four dark brown bars. White below streaked on breast and barred thereafter with dark rufous brown. Throat and undertail coverts pure white. A conspicuous black mesial stripe from chin to breast. Sexes alike. Female larger in size. **Distribution**: North and NE. India down to the Godavari river and the E. Ghats. Bangladesh(?); Sri Lanka. A smaller race in the hills of the Western Ghats. **Habits**: A forest dweller, in open deciduous to evergreen forests. Sedentary and parochial. Hunts like the Shikra by surprising the prey. **Food**: Small mammals and birds up to the size of the junglefowl. **Call**: Said to be a shrill yelp. Attacks nest robbers giving out loud screams. **Nesting**: *Season* — March to May. *Nest* — massive structure (50 cm) of sticks lined with leaves on densely foliaged trees in ravines or hill country. *Eggs* — 2 to 3, bluish white. Both sexes share parental duties.

79. **Sparrow-Hawk** *Accipiter nisus* (Linnaeus)

Plate 11

Syn. No. 147

Local name: *Basha* (Hindi).

Size: House Crow-. **Field Characters**: A medium-sized short-winged hawk, difficult to distinguish from the Shikra or the Besra Sparrow-Hawk. Lacks mesial stripe on throat. Male has darker and slatier upperparts and legs longer and slenderer than Shikra's. A white supercilium. Four or five blackish bands on tail. Female larger than male, more brown. Immature birds are dark brown with rufous edged feathers and conspicuous white base to neck and nape feathers. Breast feathers with heart-shaped rufous-brown spots and bars on abdomen, flanks and thigh coverts. The resident race darker slate above deeper rufous below. **Distribution**: Throughout the subcontinent. Resident as well as migratory. The resident race *A. n. melaschistos* breeds between 1400-3000 m from Baluchistan along the entire Himalayan range, east to Arunachal Pradesh. In winter descends to the foothills and adjacent plains. Recorded in the Andamans in winter; not Sri Lanka. **Habits**: Usually solitary. Hunts as other species of the group ambushing unwary prey by pouncing from a tree or flies at great speed close to the ground flushing small birds feeding on the ground or in bushes. **Food**: More or less exclusively birds up to the size of a dove. The female much favoured by falconers and can be trained to take hare and birds much larger in size. **Call**: Two long notes followed by three or four short ones *tin-tin-tititi*. **Nesting**: *Season* — Resident race breeds from April to June. *Nest* — usually the unused nest of jungle crow, etc. Sometimes builds itself on cliff ledges. *Eggs* — 4 to 6, buffy red or bluish white with red-brown or black-brown spots or blotches. Both sexes prepare the nest but only female incubates.

80. **Besra Sparrow-Hawk** *Accipiter virgatus* (Temminck)

Plate 11

Syn. No. 149

Local names: *Besra* - female, *Dhooti* - male, *Khand besra* (Hindi). *Vaishtapa dega* (Telugu); *Urchitlu* (Kannada); *Ukutsa, Kurulla goya* (Sinhala); *Sinna valluru* (Tamil).

Size: House Crow-. **Field Characters**: A shikra-like hawk distinguished by the bold black mesial stripe on throat. *Male*: Blackish slaty grey above. Tail grey square, three to four blackish bands. Chin and throat white with distinct black mesial stripe and two faint moustachial streaks. Breast and flanks rufous. Lower breast and abdomen may be barred. *Female* differs in being rich chocolate-brown above with crown and nape slaty black. *Immatures* have rich rufous edge to brown upper feathers, white broadly streaked with brown and barred on flanks. Occasionally five black bars on tail. Five races. **Distribution**: Heavy forests of the Himalayas, hills of eastern India, Western and Eastern Ghats. Andamans and Nicobars; Sri Lanka; Bangladesh. Replaces Shikra and Sparrow-hawk in such forests. **Habits**: Hunting habits similar to those of other short-winged hawks. Very quick on the wing in pursuit of prey. **Food**: Largely small birds but takes squirrels, mice, bats, lizards and insects. **Call**: Recorded as a squealing *tchew-tchew*. **Nesting**: *Season* — March to June. *Nest* — a platform of sticks lined with leaves in densely foliaged trees. Often the repaired nest of crows, etc. *Eggs* — 3 to 5, roundish oval, blue white smudged with reddish brown.

81. **Longlegged Buzzard** *Buteo rufinus* (Cretzschmar)

Plate 12

Syn. No. 153

Local name: *Chuhamar* (Hindi).

Size: Pariah Kite. **Field Characters**: Resembles an immature Brahminy Kite. Colour extremely variable in shades of brown with brown or almost white head, neck and breast. Pale creamy rufous tail with indistinct cross-bars and a broad subterminal band distinctive. Legs unfeathered. **Distribution**: Breeds in the subcontinent in the Himalayan forest country. In winter widespread in the plains but difficult to distinguish, south to Karnataka and Tamil Nadu. Also Sri Lanka. **Habits**: A heavy sluggish bird, usually seen singly or in pairs perched on tree tops or on mounds in open country. Attends forest or grass fires to feed on escaping animals. Often seen soaring and circling for hours. Indulges in spectacular aerobatic displays during breeding season. **Food**: Carrion, small mammals, disabled birds, reptiles, etc. **Call**: A loud wailing cat-like mewing. **Nesting**: *Season* — March to May. *Nest* — large structure of sticks on a high tree or rock shelf. *Eggs* — 2 or 3, white to buff blotched with deep brown.

82. **Buzzard** *Buteo buteo* Linnaeus

ACN: Common Buzzard

Plate 12

Syn. No. 156

Local names: For all buzzards *Chuhamar* (Hindi); *Ukussa* (Tamil); *Parundu* (Tamil, Malayalam — apparently general for all hawks).

Size: Pariah Kite-. **Field Characters**: Two races, *japonicus* with brown tail and *vulpinus* with bright rufous tail. Has dark and light plumage phases like other buzzards. Can be

confused with immature Pariah Kite. Legs one-third or half feathered in front. Naked portion scutellated. Field identification difficult. In overhead flight the broad black-tipped wings show large whitish patches. **Distribution**: Throughout the subcontinent. Breeds in the Himalayas from Gilgit eastwards. Winters in the foothills - Nepal to Arunachal Pradesh and Manipur; south to Kerala, Tamil Nadu; Sri Lanka. Numbers augmented by extralimital migrants. **Habits**: Little known. Observed riding up drafts over gorges, sometimes in the company of vultures. Also engages in slow, sailing flight over tree tops. **Nesting**: *Season* — ill defined. *Nest* — usual stick structure on ledges of cliffs or on ground on steep hillsides.

83. **White-eyed Buzzard** *Butastur teesa* (Franklin)

Plate 12

Syn. No. 157

Local names: *Tisa* (Hindi); *Buda mali gedda* (Telugu); *Yellur* (Yerkali); *Parundu* (Malayalam, for all hawks).

Size: Jungle Crow±. **Field Characters**: A small greyish brown hawk with white throat, two dark cheek stripes, brown and white underparts, and orange-yellow cere. Eyes white or yellowish white, conspicuous at close quarters. A whitish nuchal patch and buffish wing shoulders provide additional clues to its identity. Sexes alike. Singly, in open scrub country. **Distribution**: The drier parts throughout the Indian Union up to about 1000 m in the Himalayas (scarce in the southern peninsula); Pakistan; Bangladesh; Myanmar. Not Sri Lanka. Resident, but also moves locally. **Habits**: Affects dry open country and thin deciduous forest; avoids humid and densely-wooded tracts. Rather sluggish. Perches on dry trees, telegraph posts, etc., and swoops down on its prey. **Food**: Locusts, grasshoppers, crickets and other large insects as well as mice, lizards and frogs. A beneficial species, quite wrongly accused of destroying game birds. **Call**: A not unpleasant, plaintive mewing, usually uttered when pairs soar in circles high up in the air. Often in company with larger birds of prey, silhouette, of the rounded wings reminiscent of the Shikra. **Nesting**: *Season* — principally February to May. *Nest* — a loose, unlined cup of twigs like a crow's up in the fork of a thickly foliaged tree such as mango, preferably one in a grove. *Eggs* — 3, greenish white broad ovals of a fairly smooth texture. Both sexes share nest-building and feeding young; female alone incubates.

84. **Hodgson's** or **Feathertoed Hawk-Eagle**
Spizaetus nipalensis (Hodgson)

ACN: Mountain Hawk-Eagle

Plate 13

Syn. No. 158

Local name: *Kanda chil* (Lepcha); *Reijore* (Sikkim).

Size: Kite±; length 70 cm (28 in.). **Field Characters**: A distinctive crest of long black feathers (white-tipped in young). Dark brown above with white barring on rump and upper tail-coverts and dark grey barring on tail. A median and two broad black moustachial streaks on chin and throat. Foreneck and upper breast fulvous white with broad black vertical streaks or oval drops or brown and white barring. Otherwise chocolate-brown with brown and white barring on flanks, thigh and under tail-coverts. Legs long and slender with fully feathered tarsus. Female larger. **Distribution**: The nominate race resident and breeding in

the Himalayas and wintering in the forests of the Gangetic plains. A smaller race (*kelaarti*) in the Western Ghats of Karnataka, Tamil Nadu (Nilgiris), and Kerala. Sri Lanka. **Habits**: A forest eagle, the southern race inhabiting evergreen forests. Hunts from ambush at edge of forest clearings. **Food**: Small mammals up to the size of hare; birds size of pheasants. **Call**: Said to resemble a penny whistle, also an oft repeated *kee-kikkith*. **Nesting**: *Season* — December to May. Principally February-March in the north; January in the south. *Nest* — a large platform of sticks lined with leaves on lofty trees. *Eggs* — normally a singleton, white speckled with red. Very aggressive in defence of nest. Said to be the fastest among Indian eagles. Easily tamed.

85. **Crested Hawk-Eagle** *Spizaetus cirrhatus* (Gmelin)

ACN: Changeable Hawk-eagle

Plate 13

Syn. No. 161

Local names: *Shah baaz* (Hindi), *Jutu bhyri, Namli puri gadda* (Telugu); *Mor baaz* (Gujarat).

Size: Pariah Kite+. **Field Characters**: A slender forest eagle in various confusing colour phases. Normally brown above; white below with black longitudinal streaks on throat and chocolate streaks on breast. Long narrow crest projecting behind head. In overhead flight, comparatively rounded wings (upturned at tip), longish tail, white body (spotted with brown) and grey underside of wings (streaked and spotted) are leading pointers. Sexes alike; female larger. Singly in well wooded country. **Distribution**: Practically the entire Indian Union; Bangladesh; Sri Lanka; Myanmar. Several races and closely allied species, differing in size and other details. **Habits**: Keeps a sharp lookout, perched bolt upright on a bough amongst the foliage canopy of some high tree standing near a forest clearing, for junglefowl, pheasants, hares and other small animals coming out into the open. Swoops down with a terrific rush, strikes and bears them away in its talons. **Call**: A loud, high-pitched *ki-ki-ki-ki-ki-ki-ki-ki-kee*, beginning short, rising in crescendo and ending in a scream. **Nesting**: *Season* — December to April. *Nest* — a large stick platform lined with green leaves, high up in a forest tree. *Eggs* — a singleton, greyish white, unmarked or with faint specks and blotches of light reddish at the broad end.

86. **Bonelli's Hawk-Eagle** *Hieraaetus fasciatus* (Vieillot)

Plate 13

Syn. No. 163

Local names: *Morangi* (Hindi); *Kundeli salawa* (Telugu); *Rajali* (Tamil).

Size: Kite+. **Field Characters**: A crestless, slender eagle with tail extending 5 to 8 cm beyond tips of closed wings. Tarsus feathered. Umber brown above, white to rufous buff below streaked with black. Tail dark grey above, white below with black subterminal band. Immature birds pale brown with paler head, tail barred but without terminal band. Female larger. In overhead flight, white body, blackish under wing-coverts, finely grey-barred black-tipped flight quills and longish tail with broad subterminal band are leading pointers. **Distribution**: Resident throughout the subcontinent. Uncommon. **Habits**: A powerful, bold and active hunter of mammals and birds larger than itself in size. Catches its prey from ambush or by pursuit, often in concert by a pair. **Food**: Large birds and small mammals like

hare. Takes birds up to the size of Painted Stork and geese. Particularly partial to crows. **Call**: rarely heard, a chattering *kie, kie, kikiki*. **Nesting**: *Season* — Principally December and January. *Nest* — a massive platform of sticks lined with leaves on lofty trees or cliff ledges. *Eggs* — normally 2, oval, white. Both sexes share domestic duties.

87. **Booted Hawk-Eagle** *Hieraaetus pennatus* (Gmelin)

ACN: Booted Eagle

Plate 13

Syn. No. 164

Local names: *Baghati, Jumiz, Gilehri mar* (Hindi); *Udatal gedda* (Telugu); *Punja parandu, Rasali, Kalugu* (Tamil); *Rajaliya* (Sinhala).

Size: Kite-. **Field Characters**: Two colour phases, either pale buff or rufous-white to umber-brown above, with pale rufescent buff neck, with a dark centered feathers. Forehead and lores buff white with black streak between eyes and lores and above and another above and below the eyes. Buff white below with black streaks. Dark phase, brown above and below with white tail-coverts with tail greyish brown above, pale below, banded and pale tipped. Immature similar in appearance to immature Brahminy Kite but with square-ended tail. **Distribution**: Throughout the Indian Union, largely a common winter visitor. Bangladesh; Pakistan; Sri Lanka. **Habits**: The smallest among the eagles with feathered tarsus. Takes its prey by ambush or from the ground. Usually hunts in pairs. Roosts in flocks in groves of leafy trees. **Food**: Small mammals, birds and reptiles. **Call**: Several reported, including whistling notes and a harsh *kik-kik-kik*. **Nesting**: Within our limits breeds in the western Himalayas from NWFP to Garhwal; possibly also in the Peninsula. Details lacking.

88. **Rufousbellied Hawk-Eagle** *Hieraaetus kienerii* (E. Geoffroy)

ACN: Rufousbellied Eagle

Plate 13

Syn. No. 165

Local names: None recorded.

Size: Kite±. **Field Characters**: A distinct short crest. Glossy black above. Chin, throat, upper breast white striped in black. Otherwise rich rufous chestnut below streaked black on abdomen and flanks. Sexes alike. Female larger. Immature birds brown. A line across forehead and supercilium white. Tail tipped pale brown and barred with grey, white below with black streaks. **Distribution**: Resident. Discontinuously distributed. Eastern Himalayas from Nepal eastwards to Arunachal Pradesh, and NE. hill states. Western Ghats from Goa southwards. Sri Lanka; Bangladesh. **Habits**: Affects evergreen and moist-deciduous forests. A forest eagle with hunting habits similar to those of other hawk-eagles. **Food**: Large birds and small mammals specifically squirrels, and game birds. **Call**: Normally silent. Call recorded as a strident scream. **Nesting**: *Season* — December to March. *Nest* — a large platform of sticks built on a lofty tree in dense forest. *Eggs* — singleton. White blotched with reddish.

89. **Imperial Eagle** *Aquila heliaca* Savigny

Plate 12

Syn. No. 167

Local names: *Jumiz, Bada jumiz, Salangal* (Hindi); *Frus* (Bengal).

Size: Vulture-. **Field Characters**: Adults glossy blackish brown with tawny buff to whitish head and neck. Tail mottled with grey and brown, tipped white and with a broad black subterminal band. White marks on back. Vent and under tail-coverts buff. Sexes alike. Female larger. Immature birds brown with feathers of head and neck pale edged, while upper tail-coverts, tail with pale bars, underside pale and conspicuously streaked. **Distribution**: Mainly winter visitor to N. India and down to Maharashtra *c.* 20°N. lat. Pakistan; Nepal; Bangladesh. **Habits**: A heavy sluggish bird likely to be seen perched on a tree top or on the ground for hours on end. An inveterate robber of other birds of prey, most of its prey being obtained through piracy. A confirmed scavenger feeding largely on carrion. **Food**: Other than carrion and food obtained through piracy, occasionally kills rodents, ground dwelling birds and reptiles. **Call**: Unrecorded in India. **Nesting**: Extralimital but for two records in February and April from Punjab. *Nest* — large compact masses of twigs on trees. *Eggs* — 2, dull white splotched with lavender grey.

90. **Tawny Eagle** *Aquila vindhiana* Franklin

Plate 12

Syn. No. 168

Local names: *Ukaab, Ragar* (Hindi); *Dholva* (Wagri); *Bursawul* (Yerkali); *Alawa, Salawa* (Telugu); *Ali* (Tamil, for all eagles); *Parmar* (Sind); *Deshi jummas* (Gujarat).

Size: Pariah Kite+. **Field Characters**: A heavy, variably coloured raptor ranging from dark umber brown to dirty buff, with typical flat eagle's head, powerful hooked bill and fully feathered legs. Tail rounded like vulture's but relatively longer. Wings long, reaching almost to tip of tail when at rest; broad and ending in 'splayed fingers', like vulture's, in flight. *Female* larger than male. Singly or pairs, in open country; perched on trees or soaring. **Distribution**: Practically throughout the drier portions of the Indian Union up to about 1400 m in the Himalayas. Pakistan; Bangladesh; Myanmar (part). Not Sri Lanka. **Habits**: Our commonest eagle. Affects dry open plains and scrub country, often in the neighbourhood of villages and cultivation. Largely a scavenger and pirate, feeding at carcasses or by robbing other hawks of prey they have secured. Rarely also catches hares and other small rodents, and sick or disabled birds. Becomes a troublesome marauder of the poultry yard when it has nest-young to feed. Utters a variety of loud, raucous cackles. **Nesting**: *Season* — November to April. *Nest* — a large platform of sticks, thinly lined with grass and leaves, up at the top of a solitary thorny babool or similar tree, often near a village. *Eggs* — 2 or 3, white, with a few reddish brown spots and specks. Both sexes share in nest-building and feeding the young, but evidently the female alone incubates.

The name *Aquila rapax* is restricted to the African Tawny Eagle as a distinct species.

91. **Greater Spotted Eagle** *Aquila clanga* Pallas

Plate 12

Syn. No. 170

Local names: *Kaljanga* (Hindi); *Nalla gadda* (Telugu).

Size: Kite+. **Field Characters**: Dark blackish brown with minute white specks on wings and body. Paler below. Sexes alike. Female larger. Any dark eagle without a whitish head seen near water is likely to be of this species. Distinguished from the very similar Lesser Spotted Eagle by the *pure white* under tail-coverts. Immature birds with paler crown and nape, and whitish upper tail-coverts, seen as a broad crescentic patch above tail in flight. **Distribution**: Resident in north India. Pakistan; Nepal; Bangladesh; Myanmar. In winter spreads into the Peninsula down to Tamil Nadu. **Habits**: An habitue of well-watered areas frequenting jheels and other water bodies. Less sluggish in flight than the Tawny Eagle. **Food**: Largely frogs and food pirated from other birds of prey. Also actively hunts waterfowl and small birds. **Call**: Reportedly a strident *jeb jeb jeb* frequently uttered from a tree top. **Nesting**: *Season* — April to June. *Nest* — a massive platform of sticks and twigs with the central depression lined with leaves, built near the top of a tree. *Eggs* — 1 or 2, broad oval, white, sometimes freckled with reddish.

92. **Lesser Spotted Eagle** *Aquila pomarina* C.L. Brehm

Plate 12

Syn. No. 171

Local names: *Gutimar* (Bengali); *Pahari teesa* (Hindi).

Size: Kite. **Field Characters**: Difficult to separate from the Greater Spotted Eagle but said to prefer more open wooded country. **Distribution**: An uncommon resident; in the Gangetic Plain of U.P., Bihar and Bengal, eastwards to NE. Indian states; Bangladesh. Also Madhya Pradesh and Orissa in Western India, north of Bombay. **Habits**: Similar to those of Greater Spotted Eagle but not so dependent on water. **Food**: Frogs, reptiles, birds and food pirated from kites, etc. Said to feed on silkworm pupae in Bengal. **Call**: Reportedly a high-pitched cackle. **Nesting**: *Season* — April to July. *Nest* — a large platform of sticks lined with leaves built on a large tree. *Eggs* — 1, sometimes 2, rarely 3, similar to those of the Greater Spotted but readily distinguished by smaller size and prominent reddish speckling. Both sexes share parental duties.

93. **Black Eagle** *Ictinaetus malayensis* (Temminck)

Plate 13

Syn. No. 172

Local names: *Laknanghang* (Lepcha); *Aadri nalla gadda* (Telegu); *Karung kazhugu* (Tamil); *Karimparundu* (Malayalam); *Daolin gashin* (Cachari).

Size: Kite+. **Field Characters**: A large black eagle with narrowly grey-barred tail, bright yellow cere and legs and wings reaching tip of tail at rest. In flight the widely splayed upturned primaries, and broad wings held in a flat V above line of back, a pale patch on dark under side of wings and white patch under eye diagnostic. Sexes alike. *Young* pale brown stippled paler on head and hindneck; upper tail-coverts fringed with white; throat

and breast with fulvous-brown oval drops; belly and flanks dark-streaked. **Distribution**: Resident in the evergreen and moist-deciduous hill forests of the Peninsula, W. Himalayas and to Arunachal and NE.hill states. Pakistan; Sri Lanka. **Habits**: Usually seen in pairs flying above the forest canopy methodically searching for birds nests and other prey. **Food**: Large insects, frogs, reptiles, birds. Chiefly nestlings and incubated eggs and small mammals. **Call**: Shrill yelps during the aerial courtship display. **Nesting**: *Season* — November to March in South India, January to April in the north. *Nest* — a neat, compact, stick platform high up on a tall tree. *Eggs* — usually single, whitish or pinkish densely stippled with pale brick red.

94. **Whitebellied Sea Eagle** *Haliaeetus leucogaster* (Gmelin)

ACN: Whitebellied Fish Eagle

Plate 14

Syn. No. 173

Local names: *Kohassa* (Hindi); *Samp mar* (in Orissa); *Ala gadda* (Telugu); *Kadal ali* (Tamil); *Muhudu rajaliya* (Sinhala); *Kankan* (Kanara and Konkan); *Muttayeya* (in Car Nicobar).

Size: Pariah Kite+. **Field Characters**: A large handsome eagle, ashy brown above with pure white head, neck, and underparts and terminal third of tail. In overhead flight the broad blackish border to white underside of wings, and the wedge-shaped tail are diagnostic features, when sailing, the wings are held above the line of the back in a wide V. Sexes alike. Singly or pairs, by the sea coast. **Distribution**: The seaboard of India from about Bombay south, and up the eastcoast; Sri Lanka; Bangladesh; Myanmar; Malaysia to Australia. Also Andamans and Nicobars. **Habits**: keeps to the sea coast and tidal estuaries, where if undisturbed, pairs occupy the same localities for many years in succession, almost traditionally. **Call**: A distinctive loud, nasal cackling *kenk-kenk-kenk,* etc., quickly repeated. **Food**: Fish and, principally, sea snakes scooped up in its talons from near the surface of the water. It does not dive after them like the Osprey. **Nesting**: *Season* — October to June. *Nest* — a huge platform of sticks lined with green leaves, high up in a casuarina or other lofty tree near the seashore. Also on rocky offshore islets. Usually the traditional nest is renovated from year to year. *Eggs* — 2, white, unmarked.

95. **Pallas's** or **Ringtailed Fishing Eagle**
Haliaeetus leucoryphus (Pallas)

ACN: Pallas's Sea Eagle

Plate 14

Syn. No. 174

Local names: *Machharang, Machhmanga, Dhenk, Patras* (Hindi); *Koral, Machhal* (Bengal); *Kankam* (Nepal); *Kural baaz* (Sind); *Kokna, Ugus* (C. India and on the Ganga at Rajmahal); *Sorail, Kootair* (local in Bihar).

Size: Pariah Kite+. **Field Characters**: A large dark brown eagle with pale golden brown head and a broad white band across tail, particularly conspicuous in flight. Sexes alike; female larger. Pairs, at jheels and rivers. **Distribution**: North India including Bengal and NE.states. South to a line from Surat (21°10'N.) to Gopalpur (19°20'N.). Bangladesh;

Pakistan; Myanmar. **Habits**: Inseparable from large rivers and jheels. Captures fish in the manner of the osprey, by hurling itself on the quarry from the air and seizing it in its talons; but it does not hover in the air. **Food**: Fish, snakes, rats, crabs and even carrion. Lives largely by piracy — attacking ospreys and other birds with determination, and depriving them of their legitimate prize. Occasionally it also kills coots and other water birds, or decamps with wildfowl falling to a sportsman's gun. **Call**: Loud, raucous screams very like the creaking of an unoiled wooden pulley of a village well. **Nesting**: *Season* — November to March. *Nest* — a massive stick platform at the top of some large isolated tree standing near water. *Eggs* — 3, white, broad ovals. Both sexes share all the domestic duties.

96. **Greyheaded Fishing Eagle**
Ichthyophaga ichthyaetus (Horsfield)

ACN: Greyheaded Fish Eagle

Plate 14

Syn. No. 175

Local names: *Madhuya* (Hindi); *Machhmoral* (Bengal); *Na daoling gadeba* (Cachari).

Size: Kite+. **Field Characters**: A dark brown eagle with grey head and neck. Belly, flanks and tail white, the last with a broad black terminal band. In overhead flight shortish black-ended white tail and white belly and vent, diagnostic. Sexes alike. In well-watered, well-wooded plains country. **Distribution**: All India from the Himalayan terai south to Kerala, east to NE. hill states and Bangladesh. Absent in Pakistan and in semi-desert areas of NW. India. A smaller endemic subspecies in Sri Lanka. **Habits**: Affects perennial forest streams and pools, lakes, and tidal lagoons. Keeps singly or in widely spaced pairs, sitting bolt upright on boughs overhanging a stream or waterhole. Captures fish from near the surface by pouncing from the lookout post or swooping from the air, not by plunging like an osprey. **Call**: A weird clanging scream or shout, uttered singly or in quick succession. **Food**: Fish, birds and small mammals. **Nesting**: *Season* — chiefly November to March. *Nest* — a huge stick platform in a large tree, usually near water. *Eggs* — 2 or 3, rarely 4, white, unmarked. Both sexes share the domestic chores. Incubation period 28-30 days.

97. **Black** or **King Vulture** *Sarcogyps calvus* (Scopoli)

ACN: Redheaded Vulture

Plate 15

Syn. No. 178

Local names: *Rajgidh, Mulla gidh, Bhaonra* (Hindi); *Raj shakoon, Kalo shakoon* (Bengal); *Lal gidh* (Cachar); *Raj hogon* (Assam); *Loong nong loong* (Lepcha); *Nalla borawa* (Telugu).

Size: Peacock± minus the train. **Field Characters**: A huge black turkey-like vulture with deep scarlet naked head, neck and legs. In overhead flight a whitish band on underside of wings prominent; also white patches on upper thighs and at base of neck. In sailing, wings

held above plane of body in a wide V. Sexes alike. Singly on the countryside. **Distribution**: Throughout the Indian Union, up to about 2000 m in the Himalayas; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. **Habits**: A carrion-feeder, usually present singly or in twos and threes among all vulture gatherings at animal carcasses. Far less gregarious than Whitebacked Vulture. It has a false reputation for boldness and audacity and for monopolising a carcass until it has had its fill of the choicest tit-bits. Actually it is timid and cowardly, keeping deferentially aloof of the scrimmage, sneaking in and hurriedly withdrawing with a gobbet of flesh only when the pressure of the other feasters has momentarily eased. **Nesting**: *Season* — December to April. *Nest* — a massive platform of twigs in the top of a large tree 10 or 15 m up, often close to a village. *Eggs* — singleton, white, fine-textured roundish oval.

98. **Cinereous Vulture** *Aegypius monachus* (Linnaeus)

Plate 15

Syn. No. 179

Local names: *Kala Gidh* (Hindi), *Gat panom* (Lepcha).

Size: Vulture+. **Field Characters**: A massive, black or blackish brown vulture with pinkish naked neck with a *black* ruff. Head partially naked with crown, occiput, cheek and lores covered with fur like feathers. No fleshy wattles. Immediately distinguished by its size and colour. Sexes alike. **Distribution**: Resident in the Himalayas. Wandering in winter down to 21°N. latitude. Occasional vagrant to the peninsula down to Maharashtra (Satara) and Kerala (9°3' to 9°30'N.). **Habits**: An habitue of open savannah and semi-desert country. Seen singly perched on the ground. **Food**: Carrion. Said also to feed on tortoises, extracting the flesh from under the carapace. **Nesting**: *Season* — March-April. *Nest* — an enormous platform of sticks added to annually, built on a high tree. *Eggs* — single, handsomely marked with deep red, brown, purplish brown on a white background. Sometimes pure white.

99. **Indian Griffon Vulture** *Gyps fulvus* (Hablizl)

ACN: Eurasian Griffon

Plate 15

Syn. No. 180

Local names: None recorded.

Size: Whitebacked Vulture+. **Field Characters**: A huge cinnamon-brown vulture, with scrawny almost naked neck. Head with yellowish white hair-like feathers and down. A distinctive whitish ruff at base of neck. Pinkish brown with narrow pale shaft stripes below. **Distribution**: Resident in the ranges of Pakistan. Spreads in winter over NW. India; Nepal, east to Assam. Southernmost record from Bombay. **Habits**: Affects bare mountain and open savannah and semi-desert country. Seen in small numbers at vulture gatherings at carcasses. Distinguished by its much larger size and cinnamon-brown colour. Habits similar to those of other vultures. **Food**: Carrion. **Nesting**: *Season* — January to April. *Nest* — a large platform of sticks on ledges of cliffs. *Eggs* — singleton, white, occasionally flecked with red.

100. **Indian Longbilled Vulture** *Gyps indicus* (Scopoli)

ACN: Longbilled Vulture

Plate 15

Syn. No. 182

Local names: *Gidh* (Hindi); *Gidhad* (Marathi); *Sakun* (Bengali); *Hogun* (Assamese); *Gut* (Lepcha).

Size: Whitebacked vulture+. **Field Characters**: Brown above with feathers pale edged (scalloped). Head, neck and nape naked (Himalayan race) or patchily covered with hair-like feathers or down (Peninsular race). A distinct white ruff at base of neck. Sandy brown below with broad pale shaft stripes. In overhead flight pale underside broad black trailing edge of underwing separates it from Whitebacked Vulture. The brown as against cinnamon of the Griffon distinguishes it from the similarly underwing marked Griffon. **Distribution**: Wide ranging resident. The Himalayan race (*tenuirostris*) in the Gangetic plain, lower Himalayas, eastern India; Bangladesh to Myanmar. The peninsular race (*indicus*) in Rajasthan, Gujarat and the Peninsula south of the Gangetic plains. **Habits** and **Food**: Similar to the Whitebacked Vulture. **Nesting**: *Season* — November to March. *Nest* — the Himalayan race nests on trees and peninsular race on ledges on cliff faces. *Eggs* — singleton, white. Both sexes share parental duties.

101. **Whitebacked** or **Bengal Vulture** *Gyps bengalensis* (Gmelin)

ACN: Whiterumped Vulture

Plate 15

Syn. No. 185

Local names: *Gidh* (Hindi), *Gidhad* (Marathi); *Sakun* (Bengali); *Matti pudum-gadu* (Telugu); *Walhorya* (Yerukali); *Kazhukan* (Malayalam).

Size: Peacock± minus train. **Field Characters**: A heavy, dirty blackish brown vulture with scrawny, naked head and neck. At rest, and while banking in the air, the white back is diagnostic. In overhead flight a whitish band stretching along underside of wings, broken in the middle by the brown body, also helps identification. Sexes alike. Sub-adult birds brown, without white back and easily confused with Longbilled Vulture (*Gyps indicus*) species. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. **Habits**: Our commonest vulture. A carrion-feeder and useful scavenger on the countryside and in the environs of towns and villages. Large gatherings collect at animal carcasses with astonishing promptness and demolish them with incredible speed. The obsequies are attended by a great deal of harsh screeching and hissing as the birds strive to elbow themselves into advantageous positions, or prance around with open wings, two birds tugging at a morsel from opposite ends. Though a repulsive creature at close quarters, a vulture gliding effortlessly in the sky is the very embodiment of graceful motion. **Nesting**: *Season* — October to March. *Nest* — a large untidy platform of sticks in the top of a banyan, tamarind or similar tree often along roadsides or near villages. *Eggs* — a singleton, white, occasionally speckled and spotted with reddish brown.

102. **White Scavenger Vulture** or **Pharaoh's Chicken**
Neophron percnopterus (Linnaeus)

ACN: Egyptian Vulture

Plate 15

Syn. No. 187

Local names: *Safed gidh, Kal kurgh* (Hindi); *Swet sakun* (Bengali); *Got gidh* (Bihar); *Tella borawa, Peethiri gadda* (Telugu); *Thotti kazhukan* (Malayalam); *Manjal thirudi* (Tamil).

Size: Pariah Kite. **Field Characters**: A dirty-white kite-like vulture with black wing quills, and naked yellow head and bill. Immature birds brown, rather like the kite, but the wedge-shaped (not forked) tail diagnostic. Sexes alike. Singly, or twos and threes, in open country about human habitations. **Distribution**: The Indian Union but not NE. India; Pakistan; Sri Lanka (straggler). Two races, on size and colour details. **Habits**: A useful scavenger. Affects open country, invariably in the neighbourhood of human habitations. Stalks about on the ground with a high-stepping, waddling gait — reminiscent of the German 'goose-step' — picking up offal and human excrement which form a considerable proportion of its diet. Sometimes feeds on wayside animal carcasses. Adept at killing stranded freshwater turtles and extricating flesh from the shell. **Nesting**: *Season* — principally February to April. *Nest* — a large shabby mass of twigs, filthy rags, hair and rubbish on a ledge of rock or niche in ruined fortifications, ancient crumbling mosques, tombs and the like; sometimes in the fork of a large banyan or similar tree. *Eggs* — 2, varying from white to pale brick red, blotched with reddish brown or blackish, heavily at the broad end; very handsome. Both sexes share all the domestic duties.

103. **Pale Harrier** *Circus macrourus* (S.G. Gmelin)

Plate 14

Syn. No. 190

Local names: *Dastamal, Girgit-mar, Pattai* (Hindi); *Math cheel* (Bengal); *Tella chappa gadda, Pilli gadda* (Telugu); *Poonai parundu* (Tamil); *Kurrulu goya, Ukassa* (Sinhala); *Daoling wahlai* (Cachari).

Size: Pariah Kite-; much slenderer. **Field Characters**: A slender pale ashy grey hawk with black tips to its long, narrow pointed wings, especially conspicuous in flight. Relatively long white tail cross-barred with grey. *Female* umber brown with a buff-coloured, owl-like ruff round head. Singly, sailing gracefully over standing crops and grassland. **Distribution**: In winter practically throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Keeps to cultivated and scrub country, and rolling grassland. Perches on ground in preference to bush or tree. Quarters the countryside tirelessly on outspread motionless wings, skimming over the standing crops and grass, checking itself dead in mid-air when quarry is sighted on the ground and wheeling sharply, almost in reverse gear, to pounce upon it. **Food**: Lizards, frogs, grasshoppers, nestling or disabled birds, etc. **Nesting**: Not within Indian limits; in eastern Europe and central Asia, April to June. *Nest* — a bed of leaves and grass on the ground in a corn field. *Eggs* — 4 or 5, white, spotted and blotched with reddish brown.

104. **Montagu's Harrier** *Circus pygargus* (Linnaeus)

Plate 14

Syn. No. 190

Local names: Same as for Pale Harrier.

Size: Kite-. **Field Characters**: *Male*, similar to Pale Harrier but darker grey tinged with brown. Grey throat and breast below white with chestnut shaft stripes. A narrow black transverse wing bar diagnostic. *Female* indistinguishable from female Pale Harrier. **Distribution**: Winter visitor widely distributed in the subcontinent but less common than the Pale Harrier. **Habits**: Similar to Pale Harrier, often confused with that species. **Food**: Insects, reptiles, small birds and mammals. **Nesting**: Extralimital.

105. **Pied Harrier** *Circus melanoleucos* (Pennant)

Plate 14

Syn. No. 191

Local names: *Pahatai* (Hindi); *Ablak petaha* (Nepal).

Size: Kite-; slimmer. **Field Characters**: A slim and elegant long-winged raptor of contrasting black-and-white plumage. Female dark brown above with whitish rump; rufous below. Confusable with other female harriers in the field. Usually met with in widely separated pairs. **Distribution**: Winter visitor chiefly to the eastern side of the subcontinent — Assam, Bengal, Bihar, Orissa; Bangladesh, etc. Also Sri Lanka, and sporadically elsewhere in the Peninsula. Affects open grassland, plain and hill, and paddy stubbles. **Habits**: Very similar to the Pale and other harriers of the genus. **Call**: Not heard in its winter quarters. **Food**: As of other harriers — lizards, frogs, field mice, grasshoppers, etc. **Nesting**: Mainly extralimital (Siberia, Mongolia, N. China, etc.); occasionally and sparsely also breeds in Assam and Manipur. *Season* — April to July (?). *Nest* — a rough pad of grasses on the ground in open grassland. *Eggs* — 4 to 6, white, sometimes with faint reddish flecks.

106. **Marsh Harrier** *Circus aeruginosus* (Linnaeus)

Plate 14

Syn. No. 193

Local names: *Kutar, Safed Sira* (Hindi); *Pan Cheel, Tilla bauri* (Bengali); *Poonai Parundu* (Tamil); *Karitappi* (Malayalam).

Size: Kite-. **Field Characters**: *Male* dark brown with pale rufous head, neck and breast, dark rufous below. Silvery grey tail, wings silvery grey, black tipped. *Female* dark chocolate-brown with creamy buff cap on head and buff at leading edge of wing at shoulder. **Distribution**: Winter visitor throughout the Indian subcontinent. **Habits**: A marsh frequenting harrier, frequenting jheels, marshes, paddy fields, etc. Flies leisurely a few metres above the marsh vegetation occasionally dropping to seize its prey. Unlike other harriers spends considerable time sitting on the ground or soaring aloft with wings held in a wide V above the body. **Food**: Frogs, fish, small birds, mammals and carrion. **Nesting**: Extralimital.

107. **Short-toed Eagle** *Circaetus gallicus* (Gmelin)

Plate 13

Syn. No. 195

Local names: *Saampmar* (Hindi); *Sapmaril* (Bengal); *Malpatar* (Kannada); *Pamula gadda* (Telugu); *Onan koththi, Pambu parandu* (Tamil); *Rawal* (Wagri); *Konda-tele* (Yerukali).

Size: Pariah Kite+. **Field Characters**: A brown, thick-set eagle with underparts below breast white, broadly barred with dark brown. Head large and owl-like. In overhead flight, general aspect silvery grey with darker head, and dark bars (usually 3) across tail. On close view, unfeathered legs and upwardly directed bristly feathers of face suggest identity. Immature birds brown and often confusing. Sexes alike, but female larger. Singly, in open country. **Distribution**: Practically throughout the Indian Union; Pakistan. Absent in Bangladesh, Sri Lanka, and Myanmar. **Habits**: Affects dry plains and foothills, as well as cultivated land. Method of hunting rather like the kestrel's. Frequently hovers in mid-air to scan the ground for prey, but its movements thus are cumbrous and ungainly. **Food**: Principally snakes and lizards, but also small or sickly rodents and birds. **Call**: A loud, screaming plaintive *pieeou, pieeou* chiefly during the breeding season, when also a pair will indulge in remarkable aerial tumbling and darting displays. **Nesting**: *Season* — overall December to May. *Nest* — a rough, untidy platform of twigs, sometimes lined with green leaves and grass, on a medium-sized tree preferably standing by itself in open scrub jungle. *Eggs* — a singleton, white or bluish white, broad oval.

108. **Crested Serpent Eagle** *Spilornis cheela* (Latham)

Plate 13

Syn. No. 196

Local names: *Furj baz, Dogra cheel* (Hindi, Saharanpur); *Tilaj baj, Sabchur* (Bengal); *Sin* (Assam).

Size: Pariah kite+. **Field Characters**: A dark brown raptor with a prominent black-and-white nuchal crest, very full when erected. Underparts fulvous brown, ocellated and finely barred with black and white. In overhead flight a white bar across the tail (which is seldom fanned out as in a true eagle) and two similar bars on each of the broad rounded wings, are suggestive clues. Sexes alike. Singly, or pairs, soaring over wooded country with peculiar shrill screaming calls. **Distribution**: The better-wooded parts throughout the Indian Union up to about 2000 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. Seven races concern us, differing in size and coloration details. **Habits**: An inhabitant of well-watered country and forested tracts, hill and plain. Keeps a look out for prey from a branch high up in some lofty tree, preferably one commanding a clear view of the surrounding country. Commonly seen in pairs soaring in wide circles high up in the heavens, calling. **Call**: A penetrating high-pitched screaming whistle of 3 or 4 notes *kek-kek-kek-kek-keee*. **Food**: Frogs, lizards, rats, snakes, etc. Rarely also takes junglefowl and peafowl. **Nesting**: *Season* — overall December to March. *Nest* — a large stick platform, lined with green leaves, high up in a lofty forest tree, preferably near streams or clearings. *Egg* — Single, creamy or yellowish white boldly blotched with reddish brown.

109. **Osprey** *Pandion haliaetus* (Linnaeus)

Plate 14

Syn. No. 203

Local names: *Machhlimar, Machhariya, Machhmanga* (Hindi); *Machhanrang* (Nepal); *Machhmarol, Kurari, Utkrosh* (Bengal); *Koramen gadda* (Telugu); *Megguli* (Yerukali); *Vral addipan*(Tamil); *Talipparundu* (Malayalam); *Pantiong* (Lepcha).

Size: Pariah Kite±. **Field Characters**: A dark brown hawk with a brown-and-white head, and white underparts. Across the upper breast is a broad brown band, or 'necklace' which is diagnostic both when the bird is at rest and on the wing. Sexes alike. Singly, at irrigation tanks, jheels, and on the sea coast. **Distribution**: In winter the entire Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. A Norway ringed bird recovered in Jamnagar, Gujarat. **Habits**: A fish-eating hawk, commonly found in winter on many of our larger rivers, irrigation tanks and jheels. Flies up and down over the water scanning the surface for any fish coming up within striking depth. Occasionally hovers like a kestrel to investigate more closely, with legs dangling below in readiness. At a suitable opportunity the bird closes its wings and hurls itself upon the quarry, striking the water with a great splash and often becoming completely submerged. The fish is grasped in the talons and carried off to some convenient rock nearby, where it is torn to pieces and devoured. **Call**: Seldom heard in its winter quarters; described as a clear *kai, kai, kai*. **Nesting**: In Europe the season is April to June. Its alleged breeding in the Himalayas, and elsewhere within Indian limits has not been proven.

110. **Redbreasted Falconet**
Microhierax caerulescens (Linnaeus)

ACN: Collared Falconet

Plate 16

Syn. No. 204

Local names: *Ching fin nyel* (Lepcha); *Daoling kashiba* (Cachari).

Size: Bulbul±. **Field Characters**: A diminutive pied falcon, shrike-like in perched silhouette. Flight similar to Ashy Swallow Shrike's. Glossy black above, a conspicuous black band through eye. Forehead, supercilium, sides of face and broad collar on hind neck white. Chin, throat, thighs and undertail coverts ferruginous. Otherwise rusty white below. **Distribution**: Resident. Himalayan foothills and terai from Kumaon east to Arunachal Pradesh and Cachar in Assam. **Habits**: Seen singly or in pairs on the fringes of forests and abandoned cultivation with tall trees which are used as foraging outposts. Active and alert, it makes sallies after prey and returns to base, rotating slowly to face in all directions on its perch and bobbing like a spotted owlet. Very active towards evening, vigorously pursuing its prey. **Food**: Large insects, mainly butterflies, dragonflies, grasshoppers, and small birds. Said to be able to distinguish palatable mimic species of butterflies from their impalatable models. The ground below a favourite perch is littered with wings of butterflies and dragonflies, giving an indication of species taken. **Nesting**: Not recorded.

111. **Whitelegged** or **Pied Pygmy Falconet**

Microhierax melanoleucos (Blyth)

ACN: Pied Pygmy

Plate 16

Syn. No. 205

Local name: *Daoling Kashiba* (Cachari).

Size: Bulbul±. **Field characters**: Similar to the Redlegged Falconet but black above and pure white below. Sexes alike. **Distribution**: Assam, Manipur, Bangladesh. Favours edge of forest clearings, tea plantations and deciduous and evergreen forests up to *c.* 1500 m. **Habits**: Somewhat similar to the Redlegged Falconet. Flies out from fixed perches in pursuit of insects and circles back to the perch. Insects are eaten in flight or brought back to the perch and disposed off. Can fly at great speed like other falcons and stoops at birds larger than itself in size. **Food**: Large insects such as butterflies, grasshoppers, etc. Birds up to the size of thrushes and possibly mice and other small vertebrates. **Calls**: Shrill scream and also a chattering call. **Nesting**: *Season* — March to May. *Nest* — abandoned woodpecker or barbet nest hole. *Eggs* — three to four. Incubation and other details little known.

112. **Laggar Falcon** *Falco biarmicus jugger* Gray

Plate 16

Syn. No. 206

Local names: *Laggar, Jaggar* (Hindi); *Lagadu* (Telugu).

Size: Jungle Crow±. **Field Characters**: An ashy brown falcon with brown-streaked white underparts, and narrow brown moustachial stripes running down from in front and below the eyes. In overhead flight, white breast and brown-and-white pattern on underside of the long, pointed wings are suggestive clues. Immature birds brown underneath. Sexes alike, but male smaller. Pairs, in open country about cultivation and habitations. **Distribution**: The Indian Union from about 800 m in the Himalayas; rare in Assam and extreme south India. Pakistan. Not in Sri Lanka or Myanmar. **Habits**: One of our commonest falcons. Affects open scrub country, thin jungle and neighbourhood of cultivation. Avoids humid forest tracts. Pairs work in concert, stooping on and chasing down winged prey. Is capable of sustained pursuit at great speed. In addition to pigeons which form the chief food item in urban areas, other small birds as well as field rats, lizards, locusts and dragonflies are also eaten. **Call**: A shrill prolonged *whi-ee-ee*. Before decline in vogue of falconry, was trained to hunt birds as large as florican. **Nesting**: *Season* — principally January to April. *Nest* — a twig platform lined with straw, leaves, etc., high up in a tree, on ledge of cliff, or in a disused or ruined tower. Usually an old nest of crow or other bird. *Eggs* — 3 to 5, pale stone or pinkish cream, densely blotched and smudged with reddish brown. Both sexes share in all the domestic duties.

113. **Peregrine Falcon** *Falco peregrinus* Tunstall

Plate 16

Syn. No. 209

Local names: *Bhyri* (female), *Bhyri Bacha* (male), *Bhyridega* (Telugu); *Kayal pullu* (Malayalam).

Size: Jungle Crow±. **Field Characters**: A compact, pointed winged, sleek falcon. Head slaty black conspicuous, black cheek stripes, contrasting sharply with white chin and throat

diagnostic in flight. Grey barred with black above; rufous white below, barred with black on lower breast. In overhead flight whitish coloured compact body, black-barred under wings, unexpanded tail and deliberate flight are distinctive. Female larger. **Distribution**: Winter visitor throughout the subcontinent. **Habits**: Keeps singly, usually hunting at dawn or early dusk, stooping on prey at incredible speed. **Food**: Mainly ducks, wader and other waterfowl. **Nesting**: Extralimital.

114. **Shahin Falcon** *Falco peregrinus peregrinator* Sundevall

Plate 16

Syn. No.211

Local names: *Bhyri* (female), *Bhyri bacha* (male) (Hindi. Apparently a corruption of the Arabic name 'Bahari', implying its connection with water, of the American name 'Duck-hawk'); *Bhyri dega* (Telugu); *Dega* (Yerukali); *Kayal pullu* (Malayalam).

Size: Jungle Crow. **Field Characters**: A powerful, alert, broad-shouldered falcon, slaty above with black head, nape, and conspicuous moustachial stripes. Throat and breast white; rest of underparts ferruginous. Young birds vary but are blacker above, striped on breast and heavily barred on flanks. *Female* larger. Solitary, or pairs, on cliffs, rock pinnacles, about hill forts, etc. **Distribution**: Resident practically throughout the hilly portions of India; Bangladesh; Sri Lanka; Myanmar. **Habits**: A typical falcon with pointed wings. Flight swift and powerful, on rapidly beating wings interspersed with long glides. Lives largely on birds like duck, partridges, pigeons, and parakeets stooping on them with tremendous velocity, striking in mid-air with its powerful hind claw, and bearing them away to its favourite perch on a crag to be devoured. In the breeding season pairs indulge in a spectacular aerial display, stooping at each other, looping, turning, and twisting with phenomenal speed. **Nesting**: *Season* — March to May. *Nest* — a platform of twigs, grass, etc., on a ledge on a cliff-face. *Eggs* — 2 or 3, variable, pinkish buff to pinkish red marked lightly or heavily with dark brick-red or purplish.

115. **Hobby** *Falco subbuteo* Linnaeus

ACN: Eurasian Hobby

Plate 16

Syn. No. 213

Local name: *Morassani* (Oudh, U.P.)

Size: Pigeon±. **Field Characters**: A streamlined, pointed-winged, small falcon; slaty grey above with blackish head. Rusty white broadly streaked with black below. Thighs and under tail-coverts rufous. Sexes alike. *Female* larger. *Young* brownish rather than slaty above. **Distribution**: Both resident and winter migrant from continental India in the north, south to Karnataka. The migrant *F. s. subbuteo* and the resident *F. s. centralasiae* are indistinguishable in the field. Partial to swampy ground in wooded country. **Habits**: Crepuscular, sometimes hawking insects in loose flocks of ten or more individuals. **Food**: Small birds, bats, flying insects. **Call**: Harsh, ascending *tee-tee-tee-tee-tee*. Very noisy in the breeding season. **Nesting**: *Season* — May to July. *Nest* — an abandoned crow or magpie nest repaired and renovated. *Eggs* — 3 to 4, buff to brick red speckled and spotted with

brick red or brown. Incubation largely by female.

116. **Oriental Hobby** *Falco severus* Horsfield

Plate 16

Syn. No. 214

Local names: *Dhutar* Female, *Dhuti* Male (Hindi).

Size: Dove±. **Field Characters**: Similar to Hobby but with breast and below ferruginous instead of rusty white. Immature birds dark with rufous scalloping above. Streaked with black below. **Distribution**: Resident in the lower Himalayas and Bangladesh and winters in the peninsula down to Kerala. Occasionally straggling to Sri Lanka. **Food**: Chiefly flying insects. Also small birds, bats, reptiles. **Call**: A loud squealing *ki ki ki*. **Nesting**: *Season* — March-June. *Nest* — usually a renovated crow or magpie nest. *Eggs* — 3 to 4, similar to those of the Hobby.

117. **Redheaded Merlin** *Falco chicquera* Daudin

ACN: Rednecked Falcon

Plate 16

Syn. No. 219

Local names: *Turumti, Turumtari* - female (Hindi); *Chatwa* - male (Sind); *Jellaganta, Jelgadda* (Telugu); *Jelkat* (Yerukali).

Size: Pigeon±. **Field Characters**: An elegant little falcon, bluish grey above, white below closely barred with blackish on abdomen and flanks. In flight the narrow white edging to end of tail, preceded by a broad black band are useful clues. The conspicuous chestnut head is diagnostic. Sexes alike, but female larger. Singly or pairs, in open thinly-wooded country. **Distribution**: The drier parts of the Indian Union; also Pakistan and Bangladesh. **Habits**: Affects open plains and scrub country interspersed with villages and cultivation. Avoids humid forest tracts. Male and female frequently hunt in concert, one driving and heading off the quarry while the other pursues and strikes it down. Flight straight and swift gained by rapid and regular wing beats as in Sparrow-Hawk. **Food**: Small birds, rats, mice, lizards and insects; occasionally also bats. **Call**: A high-pitched squeal. **Nesting**: *Season* — principally January to May. *Nest* — a fairly well-made cup or platform of twigs lined with grass and roots, up in a tree or atop a building. Usually old twig nests of other birds. *Eggs* — 3 or 4, pale reddish white thickly speckled with reddish brown. Bold and truculent while nesting, attacking and putting to flight much larger birds blundering into the vicinity of the nest-tree.

118. **Redlegged Falcon** *Falco vespertinus* Linnaeus

NN: Amur Falcon *Falco amurensis* Radde

Plate 16

Syn. No. 220

Local name: *Daotu hagra* (NE. Ind ia).

Size: Pigeon-. **Field Characters**: *Male*: Slate-grey above, ash grey below but for rusty red vent thighs and under tail-coverts. Distinctive orange-red orbital area, cere and legs. *Female*: slaty grey barred with black; hindneck with whitish nuchal collar. Pale rusty white below,

spotted with black on upper breast; bars on lower breast and flanks. Underwing white barred black. Lower abdomen unmarked. **Distribution**: Partly resident, mainly passage migrant in North and NE. India; disappearing about mid-December and appearing again in mid-October the following year. In the Peninsula often recorded in immense numbers in some years presumably on autumn passage to East and South Africa. **Habits**: Migratory flocks often mill around at sunset before roosting on trees. In habits very similar to kestrel but more gregarious. Said to be eaten in Cachar and East Africa? **Food**: Insects, hawked in the air and picked off the ground. **Call**: A shrill screaming while milling before roosting. **Nesting**: Mainly extralimital. *Season* — April-May. *Nest* — usually a disused Magpie nest. *Eggs* — 4 to 6, similar to kestrel eggs. Both sexes incubate.

119. **Kestrel** *Falco tinnunculus* Linnaeus

ACN: Common Kestrel

Plate 16

Syn. No. 222

Local names: *Karontia, Koruttia, Khermutia, Narzinak* (male), *Narzi* (female) (Hindi); *Thondala muchi gadda, Thondala doshi gadu* (Telugu); *Ting kyi* (Lepcha); *Cherupullu* (Malayalam).

Size: Pigeon±. **Field Characters**: A small slender falcon, brick red above with grey head; light buff below with brown spearhead spots. In flight the pointed black wings and rounded grey tail with broad black terminal band are useful clues to identification. *Female* rufous above, including head, cross-barred with blackish. Singly, in open country, perched on stake or hovering. **Distribution**: Winter visitor from the Himalayas and beyond throughout the Indian Union, Bangladesh, Pakistan, Sri Lanka, Myanmar; two races. A third race, *objurgatus*, smaller and darker, resident in S. India and Sri Lanka. **Habits**: Chiefly distinguished for its spectacular method of hunting. Checks itself in flight now and again and remains poised stationary in mid-air on rapidly hovering wing tips for many seconds, intently scanning the ground below for crawling prey. If the quarry is sighted, the kestrel pounces upon it silently and bears it away in its talons. **Food**: Field mice, lizards, locusts and other large insects. **Call**: A sharp *ki-ki-ki* or *tit ... wee* uttered on the wing; sometimes when hovering. **Nesting**: *Season* — Himalayas April-June; S. India February-April. *Nest* — a sketchy affair of twigs, roots, rags and rubbish in hole or crevice, or on ledge, of cliff. Occasionally in trees and on ruined buildings. *Eggs* — 3 to 6, pale pinkish or yellowish stone, profusely speckled and blotched with various shades of red. Both sexes share all the domestic duties.

120. **Black Partridge** *Francolinus francolinus* (Linnaeus)

ACN: Black Francolin

Plate 18

Syn. No. 238

Local names: *Kala teetar* (Hindi); *Tetra, Kalo tetra* (Garhwal); *Kais teetar* (Nepal).

Size: Half-grown village hen±. **Field Characters**: A plump, stub-tailed game bird chiefly black, spotted and barred with white and fulvous. The glistening white cheek-patches and chestnut collar of the cock are diagnostic. *Hen* considerably paler, mottled and speckled

black and white, with a chestnut patch on nape. Singly or pairs, in well-watered and cultivated country. **Distribution**: North and NE. India; Bangladesh (commonly up to 1500 m in the W. Himalayas) south roughly to a curve from Kutch through Gwalior to Chilka Lake (Orissa). Also Pakistan. Three races, differing in details of coloration. **Habits**: Restricted to well-watered scrub, tamarisk and tall grass jungle. Millet and sugar cane fields in riverain or canal-irrigated country are favourite haunts, as well as tea gardens and their environs in the Outer Himalayas. Enters crops to feed in the mornings and evenings. An exceedingly swift runner, relying on its legs for escape unless driven or suddenly come upon. Flight strong and direct with rapid whirring wing beats. **Food**: Grain, grass seeds, green shoots, white ants and other insects. **Call**: A cheerful, ringing, high-pitched *chik-cheek-cheek-keraykek* with a peculiar ventriloquistic and far reaching quality. Wholesale unregulated netting is causing serious depletion in its numbers in many areas. **Nesting**: *Season* — April to July. *Nest* — a shallow scrape lined with grass in tamarisk scrub, millet or cane fields. *Eggs* — 6 to 8, pale olive-brown to almost chocolate-brown.

121. **Painted Partridge** *Francolinus pictus* (Jardine & Selby)

ACN: Painted Francolin

Plate 18

Syn. No. 240

Local names: *Kala teetar* (Hindi); *Kakera kozhi* (Tamil).

Size: Grey Partridge. **Field Characters**: Brownish black profusely spotted and barred with white, with some ferruginous-red in the head and wings. General aspect that of female Black Partridge but without the chestnut nape-patch. When flying away from observer the blackish under tail-coverts showing on either side of tail, and the chestnut in wings are leading clues. Female differs in colour details, usually having the throat white. Singly or pairs, in grass-and-scrub country and cultivation, never far from water. **Distribution**: Peninsular India south of the range of the Black Partridge, excepting the Malabar coast; Sri Lanka. Absent in Bangladesh, Pakistan, and Myanmar. The Sri Lanka race *watsoni* is darker than the Indian *pictus*. **Habits**: Very similar in every way to those of the Black Partridge. Perhaps frequents somewhat drier country and perhaps is also more arboreal, not only roosting in trees at night but mounting into them in daytime and calling thence, particularly during the breeding season. **Call**: Almost indistinguishable from those of Black Partridge, the same harsh high-pitched *chik-cheek-cheek-keray*, rendered in Hindustani as *Subhan teri qudrat*. Female also said to call, but this needs confirmation. **Nesting**: *Season* — SW. monsoon, June to September. *Nest* — similar to that of the Black Partridge, frequently under a bush on *grassy bunds* separating inundated paddy fields. *Eggs* — 4 to 8, very like those of Black Partridge but much paler, being various shades of cream colour.

122. **Grey Partridge** *Francolinus pondicerianus* (Gmelin)

ACN: Grey Francolin

Plate 18

Syn. No. 246

Local names: *Safed teetar* (Hindi); *Gowjal hakki* (Kannada); *Kawanga* (Telugu); *Kondari, Kauthari* (Tamil); *Kozhi kata* (Malayalam); *Ussa watuwa* (Sinhala); *Chittur* (Marathi).

Size: Half-grown domestic hen; *c.* 60 cm. **Field Characters**: A plump, stub-tailed greyish brown game bird with chestnut blotching above and fine wavy black and buff vermiculations,

and chestnut tail. Throat rufous-buff circumscribed by a broken blackish line. Sexes alike, but cock with a pointed spur on each leg. Pairs or coveys, in dry scrub country and cultivation. **Distribution**: The drier portions of the entire Indian Union (excepting NE. states) up to 500 m in the Himalayas; Sri Lanka; Pakistan. Three races, differing in coloration details. **Habits**: Affects dry, open grass and thorn-scrub country. Avoids heavy forest and humid tracts. Commonly found in the neighbourhood of villages and cultivation. Coveys scratch the ground or cattle dung for food; grain, seeds, termites, beetle larvae, etc. Largely terrestrial, but roosts in babul and similar trees. When flushed, rises with a loud whir of wings. Flight swift and 'gamey' consisting of a few rapid beats of the rounded wings, followed by a short glide. Usually trusts to its legs for escape, being a very fast runner. **Call**: A ringing, high-pitched, musical *kateetar, kateetar* or *pateela, pateela* quickly repeated. The female has a less challenging *pela, pela, pela*, etc. **Nesting**: *Season* — practically all year, varying locally. *Nest* — a grass-lined scrape in scrub jungle, ploughed field or grassland. *Eggs* — 4 to 8, cream coloured or *cafe au lait*.

123. **Swamp Partridge** *Francolinus gularis* (Temminck)

ACN: Swamp Francolin

Plate 18

Syn. No. 247

Local names: *Kyah, Khyr, Kaijah* (Bengal); *Bhil titri* (N. Bihar); *Koi, Koi sorai, Koira* (Assam); *Bhel teetar, Gul teetar* (Cachar and Sylhet); *Hoi koli* (Plains Miri).

Size: Grey Partridge+. **Field Characters**: A large, long legged partridge with brown crown and nape, buff supercilium and broad buff band below eye and through ear-coverts. Above brown with rufous-brown patches barred with buff. Tail chestnut, pale tipped. Chin, throat, and foreneck rusty red, rest brown broadly streaked with longitudinal black-edged white streaks. Sexes alike but male with spur on leg. **Distribution**: Resident in the terai swampy grasslands of the alluvial plains of Uttar Pradesh to NE. states. Bangladesh. **Habits**: Affects dense *ekra* and *nal* grass jungle in low lying flood plains of the Ganges and Brahmaputra river systems. Keeps in coveys of 5 or 6 birds in swampy land clambering round reed stems. A confirmed skulker, taking to wing reluctantly. Roosts in thorn trees. Cocks pugnacious. **Food**: Omnivorous. Largely seeds and shoots. **Call**: An occasional *qua, qua, qua* in an ascending scale. **Nesting**: *Season* — February to May. *Nest* — a well-built pad of weeds and grass with a deep hollow for the eggs placed a few centimetres above water in dense cover. *Eggs* — 4-5 or 6, pale buff or stone coloured. Incubation by hen. Used as a fighting bird in Assam. The species is now endangered due to loss of habitat.

124. **Common** or **Grey Quail** *Coturnix coturnix* (Linnaeus)

Plate 17

Syn. No. 250

Local names: *Bater, Bada bater, Ghagus bater* (Hindi); *Batero, Batera* (Sind); *Kurrak, Srapok* (Baluchistan); *Bhatri* (Bengal); *Gundri* (Orissa); *Daobui Kashiba* (Cachar); *Bota sorai* (Assam); *Soibol* or *Sorbol* (Manipur); *Lovva, Bada ganga, Gurganj* (locally in Maharashtra); *Barli, Sipale hakki* (Mysore); *Gogari yellichi* (Telugu); *Kata* (Malayalam).

Size: Dove minus tail; *c.* 17 cm. **Field Characters**: A plump, squat, almost tailless partridge-like pale brown bird with buff spear-shaped streaks and irregular mottles and bars of reddish

brown and black above with an anchor-shaped black mark on throat. *Female* lacks the black anchor mark on throat. Differentiated from Rain Quail by presence of buff bars on outer webs or/and primaries. Pairs or gregariously, on ground in cultivation and grassland. **Distribution**: Practically the entire Indian Union; Pakistan; Myanmar. Not Sri Lanka. Two races differing in coloration details. Resident as well as winter visitor. **Habits**: Affects open country with standing crops, and grassland. Our resident population is vastly augmented during winter by immigrants from W. and C. Asia. Usually keeps in pairs, but large numbers concentrate in fields where food is plentiful. When such a field is walked up, the birds do not rise in a flock or all at once, but in twos and threes, and offer excellent sport with gun. Flight swift and direct; attained by rapid, vibrating wing-strokes. After flying a couple of hundred metres the bird drops into the grass again. **Call**: A loud whistling note followed rapidly by two short ones, described as 'a liquid *wet-mi-lips*'. **Food**: Grain and grass seeds, termites, etc. Quails are excellent eating, and are netted in very large numbers all along their migration routes. **Nesting**: *Season* — overall February to October; mainly March to May. *Nest* — a shallow scrape, sparsely lined with grass, well concealed in grass or standing crops. *Eggs* — 6 to 14, reddish or yellow buff, speckled and blotched with dark brown.

125. **Blackbreasted** or **Rain Quail**
Coturnix coromandelica (Gmelin)

Plate 17

Syn. No. 252

Local names: *China buter* (N. India); *Chinaga bater* (Gujarat); *Chanak* (Nepal); *Kadai* (Tamil); *Chinna yellichi* (Telugu); *Pun watuwa, Wil watuwa* (Sinhala); *Kata* (Malayalam).

Size: Grey Quail-. **Field Characters**: Similar to Common or Grey Quail but with upper breast black, and frequently also centre of abdomen. *Female* very like that of Common or Grey Quail but both sexes distinguishable from Grey Quail by absence of buff and brown cross-bars on the primaries. Pairs or small parties on ground, in cultivation and grassland. **Distribution**: Throughout the Indian Union, up to about 2000 m in the Himalayas; Bangladesh; Pakistan; North Myanmar. Resident but locally migratory. Occasional winter visitor to Sri Lanka. **Habits**: Differ little from those of Grey Quail. Moves about a great deal locally with the seasons, particularly during the monsoon when otherwise bare tracts become transformed into luxuriant grassland and provide both food and cover. There is, however still much to be learnt concerning its seasonal movements. **Call**: A disyllabic musical whistle *which-which, which-which,* etc. constantly repeated mornings and evenings, and in the breeding season also during the night. It is distinct and unmistakable with the call of the Common Grey Quail. **Nesting**: *Season* — overall March to October, but chiefly after the break of the SW. monsoon in June. *Nest* — and site same as in the Grey Quail. Sometimes the scrape is in the open under an *Euphorbia* or similar bush. *Eggs* — 6 to 8, resembling those of Grey Quail but smaller. Only the female incubates.

126. **Bluebreasted Quail** *Coturnix chinensis* (Linnaeus)

Plate 17

Syn. No.253

Local names: *Khair butai, Kaneli* (Nepal); *Gobal butai* (Oudh); *Gurru* (Bengal); *Daobui majungbi* (Cachar); *Sorbal* (Manipur); *Pandara wutuwa* (Sinhala).

Size: Grey Quail-; *c.* 14 cm. **Field Characters**: Small, dark quail with bright yellow legs. Sexes differently coloured. *Male* with forehead, supercilium, sides of neck, lower breast and flanks slaty blue, otherwise streaked, mottled and barred with buff, reddish brown and black above. Abdomen and under tail-coverts rich chestnut. *Female* like that of Grey Quail; breast and flanks barred with black instead of longitudinally streaked. **Distribution**: A monsoon nomad. Occurs east and south of a line from Bombay to Shimla and Sri Lanka. Common in eastern India. Plains to 2000 m (S. India) in swampy grasslands. Race *trinkutensis* is resident in the Nicobar Islands. **Habits**: Partial to wet terrain. Occurs in pairs and small family parties. Said to have a strong scent. **Food**: Grass seeds, grains (millet), termites. **Call**: A subdued *tir-tir-tir* when flushed. Occasionally the cock gives a call like a miniature imitation of the Hawk Cuckoo's. **Nesting**: *Season* — variable, June to August in NE. hill states; March-April in South India. *Nest* — natural hollow or scrape in ground scantily lined with leaves and grass placed in a grass clump close to thick cover. *Eggs* — 4 to 8 normally, 5 to 7, pale grey or drab green or rich sienna. Often stippled or speckled with black. Female incubates. Both parents tend young.

127. **Jungle Bush Quail** *Perdicula asiatica* (Latham)

Plate 17

Syn. No. 255

Local names: *Lowwa* (Hindi); *Vana lavari* (Gujarat); *Juhar* (Manbhum); *Auriconnai* (Santhali); *Girza pitta* (Telugu); *Kari lowya* (Kannada); *Varikada* (Malayalam).

Size: Rain Quail. **Field Characters**: *Male*: Fulvous-brown above, streaked and mottled with black and buff; white below, closely barred with black. *Female*: Lower parts pale pinkish rufous. Both sexes have a prominent buff-and-chestnut superciliary stripe from forehead backward and down sides of the neck, and a bright chestnut throat-patch. Coveys, in scrub country. **Distribution**: Locally throughout the Indian Union (excepting NE. states), plains and hills up to 1000 m, also Sri Lanka. Absent in Bangladesh, Pakistan and Myanmar. Four races concern us. **Habits**: Affects fairly open deciduous forest and dry stony grass and scrub jungle. Lives in coveys of 5 to 20 which rest bunched together and 'explode' or rise suddenly with a whir of wings when almost trodden on, dispersing in all directions but soon reuniting. **Call**: A whistling *whi-whi-whi-whi* which brings the scattered members together. Breeding males are pugnacious and challenge rivals by harsh grating calls similar to the 'argueing' of Black Drongos at the onset of their breeding. **Food**: Grass seeds, grain and tender shoots; also termites. **Nesting**: *Season* — not well defined; ranges between August and April. *Nest* — a scrape at base of a grass tussock in scrub jungle, lined with grass. *Eggs* — 4 to 8, creamy, white. The hen alone incubates. It is not certain if the cock is monogamous.

128. **Rock Bush Quail** *Perdicula argoondah* (Sykes)

Plate 17

Syn. No. 259

Local names: *Lowwa* (Hindi, Marathi); *Kampa lawya* (Kannada); *Lawunka* (Telugu); *Sinna kadai* (Tamil).

Size: Grey Quail-. **Field Characters**: A squat and plump quail. *Male* distinguished from Jungle Bush Quail by the brick-red throatpatch and absence of superciliary stripe. *Female* lacks throat patch, has whitish chin and pinkish buff or vinaceous underparts. **Distribution**: Resident Haryana, Uttar Pradesh, Rajasthan, N. Gujarat, Saurashtra, Madhya Pradesh; thence peninsular India from Deccan to Tamil Nadu and east-central Karnataka. **Habits**: Affects dry, stony, scrub and bush country. Seen in coveys of 6 to 20 birds, the whole covey "exploding" out when flushed. **Food**: Grass and weed seeds, cultivated grains . **Call**: Similar to those of Jungle Bush Quail. **Nesting**: *Season* — Practically throughout the year. *Nest* — a scrape in the ground lined with grass. *Eggs* — 4 to 5, creamy white. Female alone incubates.

129. **Painted Bush Quail** *Perdicula erythrorhyncha* (Sykes)

Plate 17

Syn. No. 262

Local names: *Kokni lowwa* (Hindi); *Kaadai* (Tamil); *Meni kaadah* (Malayalam); *Sirsee lowwa* (Mandla, Balaghat, Chanda - Madhya Pradesh); *Huker* (Bengal); *Huker gundri* (Santhali).

Size: Grey Quail. **Field Characters**: A darkish brightly coloured quail with deep red bill and legs, eye-catching even in flight. *Female* has brick-red underparts and lacks the white throat and head stripe. Coveys in broken foothills grassland at edge of jungle. **Distribution**: Resident; local and parochial. Practically all continental and peninsular India, up to *c.* 2000 m. Not Sri Lanka. Two subspecies. **Habits**: Very similar to Jungle Bush Quail, q.v. Keeps in coveys of 6 to 10. Comes out in open grassy patches, or on forest roads and cart tracks to feed and dust-bathe in the mornings and evenings. When flushed the birds ' explode' with a loud whirr of wings and scatter in all directions. But the covey soon reunites by the constant calling of the members to one another. **Food**: Grain, grass-seeds, and insects. **Call**: Runs of soft whistles for rallying the scattered covey. A pleasant, oft-repeated triple note *kirikee, kirikee*, etc., by cocks in the breeding season. **Nesting**: *Season* — varying locally, but practically all year. *Nest* — a scrape in the ground at the root of a bush or grass clump, sometimes thinly lined with grass. *Eggs* — 4 to 7, creamy buff to *cafe-au-lait,* indistinguishable from Jungle Bush Quail's. Incubation by female, 16-18 days.

130. **Red Spurfowl** *Galloperdix spadicea* (Gmelin)

Plate 18

Syn. No. 275

Local names: *Chhoti jungli murghi* (Hindi, Madhya Pradesh); *Chakotri, Kokatri, Kastoor* (Marathi); *Chokhara* (Gujarati); *Sarawa kozhi* (Tamil); *Yerra kodi, Jita kodi* (Telugu).

Size: Three-quarters grown village hen. **Field Characters**: Hen differs from cock in being rufous-brown above with fine black bars and freckles. Breast pale chestnut-brown above

with black spots. Cock has 2 to 4 pointed spurs on each leg; female 1 or 2. In both sexes a naked brick-red patch around eye. Pairs or family parties, on ground in stony overgrown nullahs, etc. **Distribution**: Wide but patchy; practically the entire Indian Union excepting NE. states. Three races, differing in coloration details. Absent in Bangladesh, Pakistan and Myanmar. Represented in Sri Lanka by the species *G. bicalcarata*. **Habits**: Affects deciduous scrub country, particularly where cut up by dry ravines, etc. Overgrown ruins enveloped in jungle are favourite haunts. Scratches amongst the mulch and dry leaves for food. A great skulker; scuttles away through the thickets on the least alarm. **Food**: Seeds, berries and insects. **Call**: Of the cock, a peculiar chuckle-like crow — a quick-repeated rattling *krrr-kwek, krr-kwek, krr-kwek* reminiscent of the guinea fowl. **Nesting**: *Season* — principally January to June, varying locally. **Nest** — a shallow scrape in scrub or bamboo jungle, sometimes sparsely lined with grass and leaves. *Eggs* — 3 to 5, buff coloured, like small eggs of the domestic fowl.

131. **Painted Spurfowl** *Galloperdix lunulata* (Valenciennes)

Plate 18

Syn. No. 278

Local names: *Askal, Kainjer* (Orissa); *Hutkah* (Gondi); *Kalkodi* (Tamil); *Jitta kodi* (Telugu).

Size: Grey Partridge. **Field Characters**: Coloured differently but otherwise similar to Red Spurfowl. Cock has buff-coloured breast with black spots. Hen chiefly dark olive-brown and chestnut above, with black crown. Pale olivaceous brown below; yellowish on breast with chestnut-mottled buff throat. **Distribution**: Wide but patchy; in many areas overlapping range of Red Spurfowl. Up to *c.* 1000 m elevation. Rajasthan (Sariska), rare or absent in Gujarat and coastal belt of Western Ghats, Karnataka (Bangalore). Affects bamboo jungle and thorn scrub in drier, rockier country than Red. **Habits**: Very similar to Red Spurfowl q.v. Is also a great skulker, trusting to its legs for swift escape on the slightest alarm, and reluctant to fly unless hard pressed. **Food**: Seeds, berries, drupes, insects (especially termites). **Call**: Described as a fowl-like cackling, but needs verification. **Nesting**: *Season* — principally February to May. *Nest* — a scrape in the ground lined with dry leaves. Among rootstocks of a bamboo clump or under a boulder in thorn scrub, carefully hidden. *Eggs* — 3 or 4, pale buff, like small eggs of domestic fowl.

132. **Mountain Quail** *Ophrysia superciliosa* (Gray)

ACN: Himalayan Quail

Plate 18

Syn. No. 280

Local names: Not recorded.

Size: Between Quail and Partridge. **Field Characters**: *Male* slaty grey-brown above tinged with olive. Forehead and prominent broad supercilium white, bordered above and below with black. Crown greyish brown with black streaks. Chin, throat, and face black, the last patterned with white. Under tail-coverts black with broad white terminal bars. Short, stout coral-red bill (shaped rather like bush quail's), red legs, and relatively long tail for partridge make it inconfusable with any other game bird. *Female* cinnamon-brown above, paler below, spotted and broadly streaked with black. Face pinkish grey; bill and legs duller red than in male. **Distribution**: Known only from the western Himalayas between 2000 and 2500 m

altitude, in the neighbourhoods of Mussooree and Naini Tal. Last specimen procured near latter place in 1876. **Habits**: Was found in patches of long grass and brushwood on steep hillsides, in small coveys of 5 or 6. Flew reluctantly almost when trampled on, heavily and for short distances, soon pitching into the grass again. **Call**: A shrill whistle.

Less than a dozen specimens exist in museums, and nothing is known about its biology. All recent efforts to re-discover the bird have failed.

133. **Red Junglefowl** *Gallus gallus* (Linnaeus)

Plate 18

Syn. No. 299

Local names: *Jungli murgha, Ban murgha, Lal murgha* - male, *Jangli murghi, Ban murghi* - female (Hindi, N. India, Bengal); *Lal raan kombda* (Marathi); *Ban kukur* (NE. India); *Yerra adavi kodi* (Telugu); *Natsa pia, Nagseya, Nag tse ja* (Bhutea); *Pazok chi, Tangkling* (Lepcha); *Kachari* (Bhutan); *Gera gogur* - male, *Kuru* - female (Gondi); *Ganga* (Orissa); *Daono* (Cachar); *Voh* (Kuki); *Inrui* (Kacha Naga).

Size: Village hen. **Field Characters**: Hen differs from cock in being plain streaked brown with rufous-brown underparts. Both sexes very like the 'Game Bantam' domestic breed. Pairs or parties, in scrub and Sal jungle. **Distribution**: Northern India, especially the Himalayan foothills country to Arunachal Pradesh, south to the Godavari river in eastern Madhya Pradesh; Myanmar. Almost completely overlaps distribution of Sal Tree (*Shorea robusta*) and Swamp Deer (*Cervus duvauceli*). The Indian race *murghi* differs from the Burmese *spadiceus* in details of coloration. Represented in Sri Lanka by the allied species *G. lafayettii* with breast of cock reddish orange instead of black. **Habits**: The ancestor of all domestic breeds of fowl. Parties of perhaps a cock and 3 or 4 hens come out in the early mornings and afternoons to feed in stubble fields at the edge of forest, or on forest roads and firelines, etc. Very shy. Roosts up in trees or bamboo clumps. **Food**: Grain, vegetable shoots, insects, lizards, etc. **Call**: A crow like that of the domestic Bantam, somewhat shriller and ending more abruptly; uttered mostly in the morning and again before turning in to roost, but also sporadically throughout the day. **Nesting**: *Season* — principally March to May. *Nest* — a shallow scrape in dense undergrowth, lined with dry leaves. *Eggs* — 5 or 6, like the domestic fowl's. Cock apparently monogamous.

134. **Grey Junglefowl** *Gallus sonneratii* Temminck

Plate 18

Syn. No. 301

Local names: *Jungli murgha* - male, *Jungli murgi* - female (Hindi); *Komri* (Mt. Abu); *Geera kur* (Maria Gond); *Katu kozhi* (Malayalam, Tamil); *Parda komri* (Gondi, Chanda Dist.); *Rakhi ran kombda* - male (Marathi); *Jungli murgho* (Gujarati); *Raan kombdi* (Deccan); *Tella adavi kodi* (Telugu); *Koli, Kad koli* (Kannada).

Size: Village hen. **Field Characters**: General effect of the cock streaked grey, with a metallic black sickle-shaped tail. Hen distinguishable from that of Red Junglefowl by her white (not rufous-brown) breast with blackish borders to the feathers producing a scaly pattern. Singly

or small parties, in forest and scrub jungle. **Distribution**: Peninsular India south of a line roughly from Mount Abu generally to the mouth of the Godavari river. On the borderline where the two species meet they often hybridize. **Habits**: Inhabits deciduous as well as evergreen forest, plain and hill. Particularly fond of lantana and other scrub growing on the site of abandoned forest clearings. Very shy and wary. Scuttles into cover on the least suspicion, neck outstretched and tail drooping. Roosts up in trees or bamboo clumps. **Food**: Grain, shoots and tubers, berries, termites and other insects. **Call**: A harsh crow *kuk-kaya-kaya-kuk*. When agitated or alarmed, an angry-sounding *kaghak, kaghak* is uttered rapidly. **Nesting**: *Season* — undefined; principally February to May. *Nest* — and site similar to the Red Junglefowl's, or up in a tree, of twigs and rags resembling a crow's. *Eggs* — 4 to 7, pale fawn to warm buff, similar to the domestic fowl's and also to those of Red Junglefowl. In both species the hen alone incubates.

135. **Common Peafowl** *Pavo cristatus* Linnaeus

ACN: Indian Peafowl

Plate 18

Syn. No.311

Local names: *Mor, Manjur, Mayura* (Hindi); *Mayur* (Bengali); *Mur* (Sind); *Mor* - male, *Landor* - female (Maharashtra); *Manja* - male, *Mania* - female (Orissa); *Mabja* (Bhutia); *Mongyung* (Lepcha); *Moira* (Assamee); *Wahong* (Manipur); *Dode* (Garo); *Mayil* (Malayalam, Tamil); *Monara* (Sinhala); *Nemali* (Telugu); *Navilu* (Kannada); *Mor* - male, *Dhel* - female (Gujarat).

Size: Vulture. **Field Characters**: The gorgeous ocellated 'tail' of the adult cock, 1 to 1.5 m long, is in reality the abnormally lengthened upper tail-coverts. Hen, also crested like cock, but smaller; mottled brown with some metallic green on lower neck, and lacking the ornamental train. Parties or droves, in deciduous forest. Also locally semi-domesticated about villages and cultivation, where protected by religious sentiment. **Distribution**: Throughout the Indian Union, locally up to 1800 m in the Himalayas; Sri Lanka; Bangladesh. Replaced in Myanmar by the species *P. muticus* with a pointed crest. **Habits**: Inhabits dense scrub and deciduous jungle — plain and foothill — preferably in the neighbourhood of rivers and streams. Polygamous; usually parties of one cock with 4 or 5 hens, but seasonally of the sexes separately. Always excessively shy and alert. Slinks away through the undergrowth on its legs, and flies only when suddenly come upon, or to cross a ravine or open river bed. Roosts at night in large trees. **Food**: Grain, vegetable shoots, insects, lizards, snakes, etc. **Call**: A loud harsh, screaming *may-awe*, and short gasping shrieks *ka-ann* repeated rapidly 6 to 8 times with a pumping action of head and neck. Cock displays before his bevy of hens erecting and fanning out his showy train, and strutting and posturing to the accompaniment of paroxysms of quivering. **Nesting**: *Season* — January to October. *Nest* — a shallow scrape in the ground in a dense thicket, lined with sticks and leaves. *Eggs* — 3 to 5, glossy pale cream or *cafe-au-lait* colour.

136. **Little Bustard-Quail** *Turnix sylvatica* (Desfontaines)

ACN: Small Button Quail

Plate 17

Syn. No. 313

Local names: *Ginwa lowwa, Chhota lowwa, Dabki* (Hindi); *Chhota bater* (Bengal); *Chinna* or *Telladabba gundla* (Telugu); *San gundla* (Orissa); *Chhoto sansorai* (Assam); *Sorbol* (Manipur); *Inruibuma gajeba* (Naga).

Size: Bush Quail-. **Field Characters**: A tiny quail, distinguished from the other Three-toed Quails by its pointed tail. Crown blackish brown with a white 'centre parting'. Upperparts irregularly barred rufous and black. Hind neck rusty, scalloped with buff. Whitish below with brownish buff breast and black and chestnut spots on sides. **Distribution**: Throughout the subcontinent. Nomadic in some areas. **Habits**: Affects grass-and-scrub jungle close to cultivation and grasslands. Seen singly or in pairs. Rarely in small flocks. Sedentary and parochial. A skulker difficult to flush. The circular scrapes in the mulch are the usual indication of its presence. **Call**: The muted drumming like a two stroke motor cycle engine, the call of the pugnacious polyandrous hen challenging other females can be heard during the breeding season at all times of the day. **Food**: Grass, weed seeds and small insects. **Nesting**: *Season* — Throughout the year. *Nest* — a scrape in the ground lined with grass with grass growth forming a bower like arch. *Eggs* — 4, greyish white blotched with reddish brown or purple. The eggs are brooded and chicks reared by the male.

137. **Indian** or **Yellowlegged Button Quail** *Turnix tanki* Blyth

Plate 17

Syn. No. 314

Local names: *Lowwa* (N. India); *Bater* (Bengal); bustard-quails usually not distinguished specifically.

Size: Rain Quail±. **Field Characters**: The broad orange-rufous half collar on hindneck of the female and the bright yellow legs and bill of both sexes are diagnostic. In flight, which is feebler even than that of Bluelegged Bustard-Quail, the orange-rufous hind collar, breast and flanks, and whitish underparts are pointers. Male lacks the hind collar and is less richly coloured. Singly, in damp grassland or crops. **Distribution**: Practically the entire Indian Union up to about 1000 m elevation; Bangladesh; Andamans; Nicobars; Myanmar. Absent in Pakistan and Sri Lanka. **Habits**: Affects scrub and grassland. Rises in feeble flight when almost trodden upon, only to plunge into cover again a dozen yards further. Female polyandrous as in Bluelegged Bustard-Quail. **Call**: A prolonged drumming *drr-r-r-r* similar to the blue-legged species but softer. Both are reminiscent of a two-stroke motorcycle engine running in the far distance. **Food**: Grass- and weed seeds, grain, green shoots and small insects. **Nesting**: *Season* — undefined, varying locally. *Nest* — a grasslined scrape or natural hollow under shelter of a grass tussock in grassland. *Eggs* — 4, like those of the Bustard-Quail, but usually more boldly coloured.

138. **Common** or **Bluelegged Bustard-Quail**
Turnix suscitator (Gmelin)

ACN: Barred Button Quail

Plate 17

Syn. No. 316

Local names: *Sansorai* (Assam); *Daoduma* (Cachar); *Inruibuma* (Kacha Naga); *Vohbubum* (Kuki); *Timokpho* (Lepcha); *Tinisk* (Bhutea); *Gulu, Gundra, Gundlu, Salui gundra* (Hindi); *Gulu* (Bengal); *Kalada* - male, *Pured* - female (Telugu); *Ankadik* - male, *Kurung kadik* - female (Tamil); *Durwa* (Ratnagiri); *Karechakki* (Kannada); *Bala watuwa* (Sri Lanka).

Size: Rain Quail-. **Field Characters**: A typical little quail, rufous-brown above, rusty and buff below. Chin, throat and breast closely barred with black. Female larger and more richly coloured, with throat and middle of breast black. The blue-grey bill and legs, and yellowish white eyes are diagnostic, as are also the pale buff shoulder-patches on the wings when in flight. Absence of hind toe distinguishes Bustard and Button quails from true quails. Pairs, in scrub and grassland. **Distribution**: The entire Indian Union up to about 2500 m in the Himalayas; Sri Lanka; Bangladesh; Myanmar. Four geographical races differing in colour details concern us. **Habits**: Found in every type of country excepting dense forest and desert. Partial to scrub jungle, light deciduous forest, and neighbourhood of cultivation. Differs from true quails chiefly in the female being polyandrous. She fights with other females for the possession of a cock, uttering a loud drumming *drr-r-r-r-r* as a challenge to rival hens and also to announce herself to a cock. Eggs when laid are left to be incubated by the cock who also tends the young. The hen goes off to acquire another husband, and perhaps yet another, and so on, evidently only one at a time. **Nesting**: *Season* — practically throughout the year, varying locally. *Nest* — a grass-lined scrape or depression in scrub jungle or crops, often arched over by surrounding grass. *Eggs* — 3 or 4, greyish white profusely speckled with reddish brown or blackish purple.

139. **Common Crane** *Grus grus* (Linnaeus)

Plate 19

Syn. No. 320

Local names: *Kurunch, Kurch* (Hindi); *Keonj* (Sind); *Kudam, Kulang* (Deccan, Andhra).

Size: Goose±; with long legs. Height *c.* 140 cm. (*c.* 4.5 ft.) to top of head. **Field Characters**: Large, stork-like, long necked grey bird. Head and upper neck blackish with a dull red naked patch on nape. A distinctive white band from behind eye along sides of neck. Flight feathers black. A mass of grey plumes above tail. Sexes alike. **Distribution**: Winter visitor. Common and abundant in western India. In lesser numbers in eastern India. Usually not south of 18°N. **Habits**: Seen in cultivated plains and sandy river-beds. Keep in large, very wary, flocks which spend the warmer parts of the day and most of the night on river sandbanks flying out each morning and evening to feed in cultivated fields. **Food**: Largely vegetarian, shoots of grass and cereal crops, tubers, grain, insects and small reptiles. **Call**: A loud,

sonorous, high-pitched trumpeting *krook, krook*, which carries far. **Nesting**: Extralimital.

140. **Sarus Crane** *Grus antigone* (Linnaeus)

Plate 19

Syn. No. 323

Local names: *Saras* (Hindi); *Khur sang* (Assamese).

Size: Vulture+; standing 1.5 to 1.75 m. **Field Characters**: A large, tall grey bird with long bare red legs, and naked red head and upper neck. Sexes alike. Pairs, about cultivation and marshland. **Distribution**: Northern, Central and NE. India; Bangladesh; Pakistan; Myanmar. Two races, the Burmese *sharpii* being darker than Indian *antigone*. **Habits**: Essentially a dweller of open, well-watered plains. Normally seen in pairs, occasionally accompanied by one or two young. Said to pair for life, and conjugal devotion has won for the species popular reverence and protection resulting in tameness and lack of fear of man. Flight attained by slow rhythmical wing strokes, neck outstretched in front, legs trailing behind; swifter than it appears and seldom high up in the air. **Call**: A loud, sonorous, far-reaching trumpeting, uttered from ground as well as on wing. During breeding season pairs indulge in ludicrous and spectacular dancing displays, bowing mutually, prancing with outspread wings and leaping round each other. **Food**: Grain, shoots and other vegetable matter, insects, reptiles, etc. **Nesting**: *Season* — July to December. *Nest* — a huge mass of reed- and rush stems and straw, in the midst of a flooded paddy field or a marsh. *Eggs* — 2, pale greenish or pinkish white, sometimes spotted and blotched with brown or purple. Both birds are vigilant in guarding the nest, boldly attacking dogs and cattle encroaching in its neighbourhood.

141. **Siberian** or **Great White Crane**
Grus leucogeranus Pallas

Plate 19

Syn. No. 325

Local names: *Kare khar* (NW. Pakistan); *Tunhi, Chini kulang* (Uttar Pradesh); *Burmuch* (Bihar).

Size: Common Crane±; total height *c.* 140 cm (*c.* 4.5 ft.). **Field Characters**: A magnificently beautiful, immaculate white, crane with naked red face. Black wing quills seen in flight. Could be confused with the White Stork in flight at a distance. Sexes alike. Juvenile with cinnamon coloured feathered face and head. Otherwise white tinged with cinnamon. **Distribution**: Presently a winter migrant to the Keoladeo Ghana National Park in Bharatpur, Rajasthan, only. The numbers have been declining steadily. Previously an uncommon but regular visitor to north India, east to Bihar and south to Madhya Pradesh. Usually seen in family parties. **Food**: Largely vegetarian, heavily dependent on the tubers of the sedge in the Keoladeo Ghana Sanctuary. **Nesting**: Extralimital; breeds in SE. Russia and Siberia to Turkestan. **Miscellaneous**: Two separate populations, the western population breeds in SE. Russia and winters in West Asia, India, and is almost extinct. The eastern population breeds in Siberia and winters in China. One among the most highly endangered bird species of the world.

142. **Demoiselle Crane** *Anthropoides virgo* (Linnaeus)

NN: *Grus virgo* (Linnaeus)

Plate 19

Syn. No. 326

Local names: *Karkara* (Hindi); *Ghanto* (Nepal); *Karkucha* (Marathi); *Karkaro* (Gujarati); *Koonj* (Sind, Kutch); *Kulam, Kulang* (Deccan); *Kurra* (Bihar); *Garara* (Orissa); *Wada koraka* (Telugu); *Karkoncha* (Kannada).

Size: Duck+; *c.* 1 m high. **Field Characters**: A dainty little grey crane with black head and neck. Feathers of lower neck long and lanceolate, and falling over breast. Conspicuous white ear-tufts behind eyes. Sexes alike. Large flocks in young gram and wheat fields, and on tank margins. **Distribution**: Winter visitor to the Indian Union south to Karnataka. Pakistan; Bangladesh; Myanmar. **Habits**: One of our most prominent and well-known winter immigrants. Affects open cultivated country, feeding largely on tender shoots of young gram and wheat. Flocks rest on sandbanks in rivers or margins of jheels during the midday heat, or soar in circles at great heights. A fine sporting bird, exceedingly wary and difficult to circumvent and eagerly sought by sportsmen. Cranes fly in broad V formation, neck and legs fully extended. **Call**: A loud, musical high-pitched trumpet of far-reaching quality. The din of a great concourse of *koonj* taking off the ground, with their *kurr, kurr* calls uttered in varying keys, has been aptly likened to the distant roaring of the sea. **Food**: Besides shoots and grain, insects and small reptiles. **Nesting**: In S. Europe, N. Africa and N. & C. Asia east to Mongolia. *Nest* — similar to the Sarus's. *Eggs* — 2, yellowish grey, blotched with reddish brown and grey.

143. **Indian Bluebreasted Banded Rail** *Rallus striatus* Linnaeus

Plate 20

Syn. No. 329

Local names: *Kanan kozhi* (Tamil); *Wadi kodi* (Telugu); *Kirimeti korawaka* (Sinhala); *Tuttuterippan* (Malayalam).

Size: Grey Partridge-; *c.* 27 cm. **Field Characters**: A short tailed marsh bird with chestnut head and sides of neck. Otherwise dark brown above, spotted and wavily banded with white. Chin and throat white. Foreneck and breast ashy blue. Abdomen and flanks blackish, boldly barred with white. Beak partly red, eyes red, legs olive-grey. **Distribution**: Throughout India, Andamans and Nicobars; Sri Lanka. **Habits**: An inverterate skulker of reedy swamps, mangroves, and vegetation of village tanks, etc. Not easily seen. Subject to local movements in times of drought. Walks about with an upright gait jerking the stubby tail at each step. Flies with trailing legs. The elongated toes permit walking on floating vegetation. **Food**: Omnivorous. **Call**: Normally silent. A sharp loud whistle and short jerky screams have been reported. **Nesting**: The monsoon season from mid-June to October. *Nest* — a pad of matted vegetation about 25 cm across on the ground or amidst reeds, hidden amongst marsh vegetation. *Eggs* — 5 to 7, cream or darker, smooth, glossy, blotched

and spotted with red or purple. Both sexes share parental duties.

144. **Slatylegged Banded Crake** *Rallina eurizonoides* (Lafresnaye)

ACN: Slatylegged Crake

Plate 20

Syn. No. 332

Local names: *Doubui lai* (Cachar); *Kirimeti korowaka* (Sinhala); *Kanan kozhi* (Tamil).

Size: Partridge-. **Field Characters**: A marsh-haunting rail, largely rufous-brown. Chin and throat pure white, underparts below breast white barred with black. Sexes alike. **Distribution**: A resident throughout the subcontinent, subject to local migration. Sri Lanka in winter. **Habits**: Crepuscular and partly nocturnal. Usually seen singly on the edge of shrubbery in a marsh sauntering about with upright carriage and high-stepping gait, wings partly drooping at sides, tail slightly cocked and twitched from time to time. Runs to cover on the slightest alarm. Swims jerkily like Moorhen for short distances. **Food**: Insects, molluscs, shoots and seeds of marsh plants. **Call**: A double note *kek-kek* persistently repeated during night. Also various other calls. **Nesting**: *Season* — SW. monsoon, June to September. *Nest* — an untidy cup-like pad of dead leaves, grasses in a bamboo clump or tangle of creepers up to a metre or so from the ground in dense undergrowth or scrub jungle. *Eggs* — 4 to 8, creamy white, fairly glossy. Both sexes incubate and tend the young. Incubation period unrecorded.

145. **Little Crake** *Porzana parva* (Scopoli)

Plate 20

Syn. No. 335

Size: Quail±. **Field Characters**: A small quail-like bird with dark ashy grey supercilium and sides of head and neck. Crown and neck dark rufous-brown. Otherwise upperparts olive-brown with white streaks. Below ashy grey barred with white. **Distribution**: Little known. Uncommon winter visitor. Recorded from Maharashtra (Bombay) and Karnataka. **Habits**: Affects reed beds in jheels and swamps. Similar in habits to other crakes, a great skulker and difficult to flush. When flushed flies low with hanging legs and tumbles into cover after a short flight. **Food**: Chiefly insects. **Nesting**: Extralimital.

146. **Baillon's Crake** *Porzana pusilla* (Pallas)

Plate 20

Syn. No. 336

Local name: *Jhilli* (Nepal; N. Bihar).

Size: Quail±. **Field Characters**: A typical marsh-dwelling rail. Dwarf size, rufescent olive-brown back streaked with blackish and spattered with narrow white paint-like smears, and unspotted grey breast, diagnostic. Sexes alike. **Distribution**: Breeds abundantly in Kashmir and probably elsewhere within our limits. In winter widespread in the subcontinent including Sri Lanka and the Andamans. Affects reedy marshes and jheels. **Habits**: Keeps singly or in pairs. Trips lightly over floating vegetation in search of food or swims across narrow channels, twitching up the stub tail from time to time like moorhen. A great skulker like its other relations, but tame and confiding where undisturbed. **Food**: Mainly seeds of water plants; also insects and molluscs. **Call**: A single loud, high-pitched *krek* followed by a rapid succession of *kreks* in rising tempo, reminiscent of the trilling of a dabchick. **Nesting**: *Season* — May to August. *Nest* — a pad of grass at the base of a bush in a swamp or flooded rice field. *Eggs* — 5 to 8 or 9, olive or pale brown, streaked and flecked reddish brown. Both sexes incubate. Incubation period of 20-21 days.

147. **Brown Crake** *Amaurornis akool* (Sykes)

Plate 20

Syn. No. 342

Size: Grey Partridge-; *c.* 28 cm. **Field Characters**: A stub-tailed brown-and-ashy, swamp bird. Ashy grey on sides of head, neck and indistinct supercilium. Otherwise olive brown above. Chin and centre of throat whitish, elsewhere ashy grey below passing into brown. Sexes alike. **Distribution**: Kashmir east to the NE. states up to 300 m, south to southern Karnataka in the west, and Madhya Pradesh in the east; also Bangladesh. Inhabits marshes and grassy margins of streams. **Habits**: Shy and secretive, crepuscular emerging at dawn and dusk to feed in the open. Walks about jerking the stubby tail as do other rails and crakes. When alarmed sometimes hides under boulders and in holes. **Call**: Imperfectly known. Described as a short plaintive note heard at day break and at dusk. **Nesting**: *Season* — Mainly May to August, varying with locality. *Nest* — a pad of grass, rush blades and sticks concealed in vegetation at the edge of a swamp. *Eggs* — 5 or 6, richly coloured. Creamy buff or pale salmon flecked or blotched with reddish brown. Both sexes share incubation and are close sitters.

148. **Whitebreasted Waterhen** *Amaurornis phoenicurus* (Pennant)

Plate 20

Syn. No. 343

Local names: *Dawak, Dahak, Dauk* (Hindi); *Panpaira* (Bengal); *Kinati* (Uttar Pradesh); *Ban murghi* (Bihar); *Jal murghi* (Madhya Pradesh); *Kuku kombdi* (Marathi, Bombay); *Davak* (Gujarati); *Buda kodi* (Telugu); *Kuraki* (Sind); *Kureyn* (Gond); *Pani duboi* (Assam); *Uren konthou* (Manipur); *Korowaka* (Sinhala); *Kanan kozhi* (Tamil); *Kula kozhi* (Malayalam).

Size: Partridge±. **Field Characters**: A familiar slaty grey sub-tailed long-legged marsh bird with prominent white face and breast, and bright rusty red under the tail. Sexes alike. Singly or pairs, near reeds and thickets, on marshy ground. **Distribution**: Throughout the Indian Union up to the base of the Himalayas; Bangladesh; Pakistan; Sri Lanka; Maldives; Myanmar; Andamans; Nicobars. Two races. **Habits**: Affects moist ground overgrown with tangles of bushes, *Pandanus* brakes, etc., on the margins of jheels and ponds. Wanders considerably afield in the monsoon when low-lying tracts become water-logged. The stumpy tail, carried erect as the bird stalks or skulks along, is constantly jerked up flashing the chestnut colour underneath into prominence. Ordinarily shy and silent, but exceedingly noisy during the rainy season when it breeds. Clambers up for calling into the top of a bush whence it can command a good view of its surroundings, without exposing itself. **Call**: Beginning with loud, hoarse grunts, croaks and chuckles, settles down to a monotonous, metallic *krr-kwak-kwak, krr-kwak-kwak*, etc., or just *kook-kook-kook*, rather like the Crimsonbreasted Barbet's but higher in key and faster in tempo. Heard chiefly on cloudy overcast days and often all through the night. **Food**: Insects, worms, molluscs, grain and shoots of paddy and marsh plants. **Nesting**: *Season* — June to October (SW. monsoon). *Nest* — a shallow cup of twigs, creeper stems and flags of bulrushes, up in a bush near

water. *Eggs* — 6 or 7, cream or pinkish white, streaked and blotched with reddish brown.

149. **Kora** or **Watercock** *Gallicrex cinerea* (Gmelin)

Plate 20

Syn. No. 346

Local names: *Kora, Kangra* (Hindi); *Toobka, Kora* (Bihar); *Kora, Jal morag* (Bengal); *Khora sorai* (Assam); *Utum* (probably from its call — Manipur); *Wil kukkula* (Sinhala); *Tannir kozhi* (Tamil); *Theepporikkannan* (Malayalam); *Cooli kukulu* (Maldives).

Size: Partridge+. **Field Characters**: A rail-like swamp bird. In non-breeding plumage both sexes dark brown, scalloped with fulvous *above*, pale buffy brown with wavy darker bars *below*. Breeding male black, with a bright red fleshy 'horn' above crown, and bright red legs and eyes. **Distribution**: All India south of the Himalayas from Pakistan to NE. states and Bangladesh and south to Kanyakumari and Sri Lanka. Also Andaman and Nicobar islands. **Habits**: Marsh haunting; rail-like. Keeps singly or pairs. Largely crepuscular, emerging cautiously into open at dusk or dawn, and in cloudy overcast weather. Saunters to feed at edge of shrubbery, and scuttles into cover on least alarm. Male highly pugnacious in breeding season. **Food**: Largely vegetarian — seeds, and green shoots of rice, etc., also insects and molluscs. **Call**: A series of hollow metallic booming *utumb-utumb-utumb,* etc., rapidly repeated. Also others. **Nesting**: *Season* — chiefly SW. monsoon, June to September. *Nest* — a deep cup-shaped pad of sedges, grass, etc., in a flooded ricefield or reedy marsh. *Eggs* — 3 to 6 or 8, like coot's eggs, varying from white or pinkish to brick-red, longitudinally blotched and spotted with reddish brown. Details of incubation, etc., unknown.

150. **Indian Moorhen** *Gallinula chloropus* (Linnaeus)

ACN: Common Moorhen

Plate 20

Syn. No. 347

Local names: *Jal murghi, Pani murghi* (Hindi); *Tech* (Kashmiri); *Bodor* (Bihar); *Jal murgi, Dakab paira* (Bengal); *Jumbu kodi, Bolli kodi* (Telugu); *Paat uren* or *urel* (= 'lake waterhen' — Manipur); *Wil kukkula* (Sinhala); *Tannir kozhi, Kanan koli* (Tamil); *Patta kozhi* (Malayalam); *Jal kukadi* (Gujarati); *Pan kombdi* (Marathi).

Size: Partridge±. **Field Characters**: On land a typical waterhen, on water like a small duck. A slaty grey and brown marsh bird with white edges to the closed wings, and conspicuous white under tail-coverts. Forehead (frontal shield) and base of greenish bill bright red. Longish green legs and large ungainly feet. Pairs or gregariously, amongst partially submerged rushes, swimming or skulking about. **Distribution**: Throughout the Indian Union up to 2000 m elevation and higher; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races - *indica* of the mainland and *orientalis* of the Andamans - concern us. **Habits**: Typical of the rails. Very like the Whitebreasted Waterhen except that it swims a great deal more. On water its progress is attended by the same characteristic jerky bobbing of head and a flicking up of tail when the white under tail-coverts flash prominently. Flight laboured — usually low over the water with rapid wing beats, neck stretched in front and legs trailing behind. **Call**: A sharp loud and abrupt *kirrik-crek-rek-rek* uttered from within a reed-bed, principally in the mornings and evenings. **Food**: As of Whitebreasted Waterhen. **Nesting**: *Season* — June to September (SW. monsoon). *Nest* — bulky, of sedges and weeds on ground amongst aquatic herbage, or up in a low shrub near water. *Eggs* — 5 to 12, pale yellowish to warm buff stone colour, blotched with dark reddish brown.

151. **Purple Moorhen** *Porphyrio porphyrio* (Linnaeus)

ACN: Purple Swamphen

Plate 20

Syn. No. 349

Local names: *Kaim, Kharim, Kalim, Khima* (Hindi); *Kaim, Kam pakhi* (Bengal); *Wan tech* (Kashmir); *Kaim* (Cachar); *Karim, Korma* (N. Bihar); *Kham charai* or *sorai* (Assam); *Lili jalal kauri* (Sylhet); *Umu* (Manipur); *Nila bolli kodi* (Telugu); *Neela kozhi* (Malayalam); *Kitta, Kittala* (Sinhala); *Neel kukadi* (Gujarati); *Kambala pitte* (S. Konkan).

Size: Village hen. **Field Characters**: A handsome but clumsy purplish blue rail with long red legs and toes. The bald red forehead (frontal shield) continued back from the short heavy red bill, and the white patch under the stumpy tail (conspicuous when flicked up at each step) are leading clues. Sexes alike. Pairs, or parties, in swampy reed-beds. **Distribution**: Throughout the plains of the Indian Union; Bangladesh; Pakistan; Myanmar; Sri Lanka. Two races — *seistanicus* and *poliocephalus*. **Habits**: Typical rail. Affects reedy swamps, and margins of jheels overgrown with rushes. Stalks or skulks through the vegetation with the same jerky bobbing of head and flicking of tail as the waterhen, and the flight and general behaviour of the two are also similar. Occasionally clambers awkwardly up the reed stems. **Food**: Shoots and vegetable matter; also insects and molluscs. Locally destructive to young paddy crops. **Call**: A variety of loud hooting, cackling and hoarse notes. Particularly noisy during breeding season. Male has ludicrous courtship display, holding water weeds in his bill and bowing to female with loud chuckles. **Nesting**: *Season* — June to September (SW. monsoon). *Nest* — a large pad of interwoven reed flags, etc., on a mass of floating debris or amongst matted reeds slightly above water level. *Eggs* — 3 to 7, pale yellowish stone to reddish buff, blotched and spotted with reddish brown.

152. **Coot** *Fulica atra* Linnaeus

Plate 20

Syn. No. 350

Local names: *Dasari, Dasarni, Aari, Khuskul, Thekari* (Hindi); *Karandab, Jal kukkut* (Bengal); *Kesrar, Serar* (Bihar); *Barra godar* (Purnea); *Bolli kodi* (Telugu); *Kaam, Poonaar* (Marathi); *Aad, Dasadi* (Gujarati); *Kavput, Kolur, Kolru* (Kashmir); *Aari* (Sind); *Kokdi* (Kutch); *Porom, Nganu porom* (Manipur).

Size: Village hen or 3/4 grown duckling. **Field Characters**: A slaty black, dumpy, practically tailless waterbird, very duck-like when swimming in the distance. The ivory white pointed (not flat) bill and frontal shield (on forehead) are diagnostic. The peculiar lobed or scalloped toes are also characteristic. Sexes alike. Gregariously, on tanks and jheels. **Distribution**: Throughout the Indian Union up to 3000 m in the Himalayas; Bangladesh; Pakistan; Myanmar; Sri Lanka. Resident and also winter visitor. **Habits**: As a resident found sparingly on rush-bordered irrigation tanks, etc. In winter numbers vastly augmented by immigrants from central and western Asia and then abundant on most large jheels, especially in northern India. Skitters along the water to take off, half running half flying; rises with much labour and pattering, but flies strongly when properly launched. The rapid almost hovering wing beats, the blunt barrel-shaped body and the legs trailing behind rail-like, distinguish it from a duck in flight. **Food**: Grass and paddy shoots, aquatic weeds and insects, molluscs, etc.

Call: A clear and loud trumpet-like cry, often heard at night. **Nesting**: *Season* — principally July/August. *Nest* — a large compact mass of rushes among matted reeds slightly above water level. *Eggs* — 6 to 10, buffy stone-colour, stippled and spotted with reddish brown or purplish black.

153. **Great Indian Bustard** *Choriotis nigriceps* (Vigors)

NN: Indian Bustard *Ardeotis nigriceps* (Vigors)

Plate 21

Syn. No. 354

Local names: *Sohan, Gughunbher, Hukna* (Hindi); *Tuqdar, Gurayin* (Punjab); *Godawan* pronounced *Godaan* (Jaisalmer, Rajasthan); *Gurahna, Garumba* (Sind); *Gudad* (Kutch); *Ghorar* (Gujarati); *Hum* (Marathi); *Serailu, Bherar* (Madhya Pradesh); *Mardhonk, Maldhonk, Karadhonk, Karlunk* (Deccan); *Heri hakki, Arlkujina hakki, Yereladdu* (Kannada); *Bat meka* or *Bat Myaka* (Telugu); *Kanal myle* (Tamil = 'mirage peacock').

Size: Vulture+; standing *c.* 1 m to top of head; weighing up to 18 kg (40 lb). **Field Characters**: A heavy ground bird reminiscent of a young ostrich. Deep buff above finely vermiculated with black; white below with broad black gorget on lower breast. Conspicuous black-crested crown. In flight the white outstretched neck and underparts, black crown and gorget, and a large whitish patch near tip of wings prominent. Sexes alike; female smaller. Pairs, or parties, on open plains and about cultivation. **Distribution**: Locally throughout the Indian Union (excepting W. Bengal and NE. India) south to Karnataka; Pakistan. Resident and local migrant. **Habits**: Affects open sparse grass and scrub plains country interspersed with cultivation. Usually 3 or 4 loosely together, but scattered droves of 25 to 30 recorded. Is a good runner and heavy in take-off, but once launched flies strongly with steady rhythmical flapping of the broad wings. Persecution by shikaris and narrowing of its habitat due to spread of cultivation has reduced the species to near extinction. It is now totally protected by law. **Food**: Grains and shoots of various crops, locusts, beetles, centipedes, lizards, etc. **Call**: A bark or bellow — something like *hook*. Cock polygamous. When in puffed-out strutting display with drooping wings before his hens, utters a deep, far-reaching moaning call. **Nesting**: *Season* — undefined, chiefly March to September. *Eggs* — a singleton, rarely two, drab or pale olive-brown, faintly blotched with deep brown. Laid in a shallow depression at base of a bush. Only the female incubates.

154. **Houbara Bustard** *Chlamydotis undulata* (Jacquin)

Plate 21

Syn. No. 355

Local names: *Tiloor, Hobara, Obara* (Punjab); *Taloor* (Sind); *Tilor* (Rajasthan); *Siara tiloor* (Kutch); *Charz, Charas* (Baluchi), *Sara, Sari* (Pushtu).

Size: Domestic hen±; standing *c.* 60 cm. **Field Characters**: Sandy buff with blackish vermiculations, pencillings and blotches. A short black and white crest and ruff on sides of neck. A tuft of greyish plumes from lower throat covering the breast. White below barred with black on the flanks. Female smaller with less developed ruff and neck plumes. Resembles the Great Indian Bustard in long bare legs and horizontal body carriage. In

flight white patches near the blackish wing tips prominent. **Distribution**: Said to breed in Baluchistan (Makran), spreading in winter to rest of Pakistan, Rajasthan and Gujarat affecting sandy semi-deserts. Has strayed to Kashmir, Delhi and Kerala (*c.* 12° N. lat.). Numbers decreasing since about a decade. **Habits**: Roosts in open places and bare areas whence intruder could be detected. Inactive during dark night and mid-day, feeding on moonlit nights. Tries to hide the head first on being disturbed, relying for safety on its protective coloration. **Food**: Omnivorous, but largely vegetarian, taking tender shoots of wheat and various berries; also ants, beetles, grasshoppers and locusts, lizards and small snakes. **Call**: Very silent. **Nesting**: No authenticated records as regards season. *Nest* — a bare depression in the sand or amongst desert stones, under the shelter of a small bush or grass tussocks. *Eggs* — 3 or 4, brownish stone, tinged olive, blotched and spotted with umber-brown and pale secondary markings.

155. **Bengal Florican** *Eupodotis bengalensis* (Gmelin)

Plate 21

Syn. No. 356

Local names: *Charas, Charg, Charat* (Hindi); *Dahar* (Bengal); *Olu moira* (Assam); *Dao tiriling* (Cachar).

Size: Domestic hen+; standing *c.* 55 cm. **Field Characters**: Male in breeding plumage has a moppy black crested head, neck and underparts. Back buffy brown vermiculated with black arrowhead marks, elongated plumes overhanging breast. Exposed parts of wing glistening white. Female and first year male rufous-buff overall and sandy buff mottled with black with bold arrowhead markings. **Distribution**: Indian Union from Kumaon eastwards to the NE. hill states; Bangladesh. Rare south of the Brahmaputra. Affects grasslands interspersed with scrub and bushes. **Habits**: Keeps in widely scattered solos with sexes being segregated; rarely 4 to 8 individuals could be found in a restricted area. Feeds in open short grass areas early morning and evenings, taking to thicker cover as the day advances. **Food**: Largely vegetarian, but includes grasshoppers, locusts, beetles and ants; lizards and small snakes are occasionally taken. **Call**: Normally silent, uttering a shrill metallic *chik-chik-chik* when surprised. **Nesting**: *Season* — Chiefly March to August. *Nest* — a shallow depression on the grass floor, difficult to spot; incubation by female, the male suspected to be promiscuous. *Eggs* — invariably 2, smooth, glossy oval-shaped and olive-green with blotches of purple and purple-brown with pale purplish secondary markings.

156. **Lesser Florican** *Sypheotides indica* (J.F. Miller)

NN. *Eupodotis indica* (J.F. Miller)

Plate 21

Syn. No. 357

Local names: *Leekh, Chhota charat* or *charaz, Barsati* or *Kala charaz* or *tugdar* (Hindi); *Chhota dahar, Likh* (Bengal); *Khar mor* (Gujarat); *Tiloor* (Kutch); *Khar mur* = grass peacock, *Tanmur* (Sind); *Khar teetar* (Bhil); *Chini mor* (Belgaum); *Kannoul* (Kannada); *Niala nimli* (Telugu); *Warragu kozhi* (Tamil); *Chatta kozhi* (Malayalam).

Size: Village hen; longer neck and legs. **Field Characters**: Hen sandy buff, mottled and streaked with blackish. Cock in non-breeding plumage like hen and minus the upwardly curled head plumes. He retains a good deal of the white in the wings. Singly, or widely

separated pairs in tall grassland. **Distribution**: The greater part of the Indian plains, excluding NE. hill states. Pakistan (part). Resident and locally migratory, chiefly during the rains. **Habits**: Affects tall grass country and standing fields of cotton, millets, etc. Not gregarious. Flight like bustard's but the more rapid wing strokes produce resemblance to a lapwing in silhouette. **Food**: Green shoots, grain, seeds, beetles, etc. Is good eating and much persecuted by shikaris during breeding season, when displaying cock particularly vulnerable. The cock's nuptial display consists of constantly jumping or springing up above cover of long grass or crops even up to 500 times in a single day. This is believed to advertise his presence to hens and to warn off rival cocks. A loud rattling or clapping auditory signal produced by the wings accompanies each jump, and the performer floats down perpendicularly with tail spread out, vaguely reminiscent of the male Iora's aerial display. **Nesting**: *Season* — July to October (SW. monsoon). *Eggs* — 3 or 4, some shade of olive-brown, mottled and streaked with brown. Laid on bare ground in a grass or crop field. The female alone incubates and tends the young.

157. **Pheasant-tailed Jaçana**
Hydrophasianus chirurgus (Scopoli)

Plate 20

Syn. No. 358

Local names: *Piho, Pihuya* (Hindi); *Gund kav, Gair kov* (Kashmir); *Surdal, Sakdal, Miwa, Dal kukra, Bhepi, Jal manjor, Jal mayur, Jal kokra, Chitra billai* (Bengal, Bihar); *Lobo dak* (Santhali); *Rani didao gophita* = 'Little White Water Princess' (Cachar); *Yem paraba* = Cook fowl (Manipuri); *Pan kukkula, Ballal seru, Vil girava* (Sinhala); *Miwa, Manal pura* (Tamil); *Tamara kozhi* (Malayalam).

Size: Partridge±. **Field Characters**: In breeding dress, identified in flight by the large amount of white and chocolate-brown in plumage, and the pointed downcurved tail. Non-breeding birds chiefly pale brown and white, with a black 'necklace' on upper breast and minus the sickle-shaped 'pheasant' tail. Spidery elongated toes as in Bronzewinged Jaçana. Sexes alike. Singly, or gregariously on vegetation-covered jheels, etc. **Distribution**: Throughout the Indian Union normally up to 2000 m in Kashmir; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Not appreciably different from those of the Bronzewinged species. In off season collects in flocks of 50 to a hundred. At rest the non-breeding plumage is very obliterative in the environment of dry floating water-lily stems and leaves. As the birds rise in alarm and fly away the white wings flash into prominence in the same way as the Pond Heron's. **Call**: A peculiar nasal mewing *tewn, tewn*, etc. **Food**: Same as of Bronzewinged Jaçana — vegetable matter, aquatic insects, and molluscs. This species possesses a pointed spur at the bend of the wing whose function is uncertain. **Nesting**: *Season* — June to September (SW. monsoon). *Nest* — same as in Bronzewinged Jaçana; sometimes lays directly on floating singara (water chestnut *Trapa* sp.) leaves partially submerged in water. *Eggs* — 4, peg-top shaped, glossy greenish bronze or rufous-brown, unmarked. Female polyandrous, like Painted Snipe.

158. **Bronzewinged Jaçana** *Metopidius indicus* (Latham)

Plate 20

Syn. No. 359

Local names: *Dal Pipi, Jal pipi, Karatiya* (Bengal); *Pipi, Kundai* (Bihar); *Kattoi* (Purnea); *Kalo jal manjar* (Gujarati); *Pipi* (Cachar); *Thamnachenbi* = 'Running on lotus leaves' (Manipur).

Size: Partridge±. **Field Characters**: A leggy swamp bird somewhat like a moorhen, with glossy black head, neck and breast, metallic greenish bronze back and wings, and chestnut-red stub tail. A broad white stripe behind eye to nape. Enormously elongated spider-like toes. Immature birds chiefly whitish, rufous and brown. Sexes alike. Singly, or gregariously, on tanks with floating vegetation. **Distribution**: The entire continental Indian Union (excepting W. Rajasthan); Pakistan; Bangladesh; Myanmar. Not Sri Lanka. **Habits**: Affects jheels and tanks abounding in floating vegetation such as waterlily and singara (*Trapa*). The elongated, widely spreading toes help to distribute the bird's weight and enable it to trip along with ease over the floating tangles of leaves and stems. Becomes tame and fearless on village tanks if unmolested. A typical rail in flight and general behaviour. Swims well with the carriage of a moorhen, and also dives on occasion. **Food**: Seeds, roots, etc., of aquatic plants; insects and molluscs. **Call**: A short harsh grunt; also a wheezy piping *seek-eek-seek,* etc. Becomes noisy during the breeding season. **Nesting**: *Season* — June to September (SW. monsoon). *Nest* — a skimpy pad of twisted weed-stems, etc., on floating leaves often partially submerged, or amongst marginal rushes. *Eggs* — 4, glossy, handsome, bronze-brown with an irregular network of blackish scrawls. Female polyandrous, like Painted Snipe.

159. **Oystercatcher** *Haematopus ostralegus* Linnaeus

Plate 22

Syn. No. 360

Local names: *Darya gajpaon* (Hindi); *Yerra kali ulanka* (Telugu); *Dobah* (Sind).

Size: Partridge+. **Field Characters**: A striking black-and-white shore bird with stoutish bare red legs and long, straight, compressed orange-red bill, snipe-like but blunt or truncated at tip. In flight the broad white band across the black wings, white lower back and underparts contrasting with the black head, breast, and tail, are diagnostic points. Sexes alike. Pairs or parties on sea coast. **Distribution**: Practically world-wide. Winter visitor to India, Bangladesh and Pakistan; in two races: NW.-Astiatic *ostralegus*, NE.-Asiatic *osculans*. The latter form (presumably) recorded as breeding in the Sundarbans. **Habits**: Keeps to rocky seashores and tidal estuaries where it runs about and feeds at low tide. **Food**: Chiefly oysters and mussels, the shells being prised open and contents chiselled out with the specially adapted bill. Also small crabs and marine worms probed out of the wet sand. **Call**: A shrill, plaintive piping, reminiscent of the whistling teal. **Nesting**: Only once recorded within Indo-Bangladesh limits (Khulna Sundarbans), in April. *Nest* — a scrape on an open sandbank paved with shells and pebbles. *Eggs* — 3 or 4, brownish buff spotted with black and dark grey, somewhat more heavily at the broad end.

160. **Whitetailed Lapwing** *Vanellus leucurus* (Lichtenstein)

Plate 23

Syn. No. 362

Size: Grey Partridge *c.* 28 cm. **Field Characters**: Resembles Yellow-Wattled Lapwing, but without its black cap and unlike it always seen near water. In flight easily distinguished by white lower back and tail and black-and-white bars on wings. Legs yellow. **Distribution**: Winter visitor to N. India and Pakistan; east to Bangladesh, south to Gujarat and N. Madhya Pradesh; has straggled to Bombay. **Habits**: Gregarious, in flocks along with other waders in marshy areas. **Food**: Aquatic insects and other invertebrates. **Call**: Usually silent in winter, but for an occasional mellow, double-noted *pi-wick*. **Nesting**: Extralimital. Iraq.

161. **Redwattled Lapwing** *Vanellus indicus* (Boddaert)

Plate 23

Syn. No. 366

Local names: *Titeeri, Titai, Titi, Titori* (Hindi); *Tateehar* (Sind); *Hatatut, Hatatertu* (Kashmir); *Balighora, Tetatua* (NE. India); *Titwi* (Marathi); *Titodi* (Gujarati); *Yennapa chitawa* (Telugu); *Allkati* (Tamil); *Chenkanni* (Malayalam).

Size: Partridge+; more leggy. **Field Characters**: A familiar plover, bronze-brown above, white below, with black breast, head and neck, and a crimson fleshy wattle in front of each eye. A broad white band from behind eyes running down sides of neck to meet the white underparts. Sexes alike. Producer of the well-known *Did-he-do-it*? calls. Scattered pairs at tanks, puddles, etc. **Distribution**: Throughout the Indian Union up to about 1800 m in the Himalayas and peninsular hills; Bangladesh; Pakistan; Sri Lanka; Myanmar. The Indian race *indicus* concerns us mostly. **Habits**: Affects open country, ploughed fields, grazing land, and margins and dry beds of tanks and puddles. Also met with in forest glades around rain-filled depressions. Runs about in short spurts and dips forward obliquely to pick up food in the typical plover manner. Is uncannily and ceaselessly vigilant, day or night, and foremost to detect intrusion and raise the alarm. **Call**: A loud, penetrating, *Did-he-do-it?* repeated placidly or frantically as the occasion demands. **Food**: Insects, grubs, molluscs, etc. **Nesting**: *Season* — chiefly March to August. *Eggs* — 4, stone colour or greyish brown, blotched with blackish; peg-top shaped. Laid on bare ground in open wasteland, occasionally with the depression ringed around with a few pebbles. They match the soil to perfection and are difficult to find.

162. **Spurwinged Plover** *Vanellus spinosus* (Linnaeus)

Plate 22

Syn. No. 363

Local name: *Ngahoibi* = 'fish chaser' (Manipur).

Size: Partridge+. **Field Characters**: An obvious cousin of the Redwattled Lapwing. Vinous grey and light brown above and on breast; white below. Forehead, crown, occipital crest, and throat black bordered with white. A black patch on abdomen. Rump and tail white with a broad black tip to latter. In flight a large white patch or bar on the wing, black wing-tips, and contrasting black and white pattern on head diagnostic. On ground, the hunched posture with head and neck almost furtively drawn in is a notable feature. Sexes alike. Pairs or

small parties on sand-banks and shingle beds of large rivers. **Distribution**: A large portion of northern and eastern India from western U.P.; Nepal; Bhutan and NE. states, south through western M.P. and Andhra Pradesh. Bangladesh; Myanmar. Not Sri Lanka and Pakistan. Extends into the Indochinese sub-region. **Habits**: Affects shoals and sandbanks in the larger rivers and hardly ever met with away from them. Flight, movements, and behaviour in general very like those of the Redwattled Lapwing. **Call**: A single-noted high-pitched, insistent *did, did, did*, etc., of the quality of the Yellow-wattled Lapwing's call. The pointed black horny spur on the bend of the wing could be an effective weapon of offence, but it has not been observed to be so used. **Nesting**: *Season* — March to June. *Nest* — a shallow scrape in sand on an exposed river bank. *Eggs* — 3 or 4, olive stone or yellowish stone, blotched and spotted with shades of brown and black — very like those of the Redwattled Lapwing.

163. **Yellow-wattled Lapwing** *Vanellus malabaricus* (Boddaert)

Plate 23

Syn. No. 370

Local names: *Zirdi* (Hindi); *Jithiri* (Pakistan); *Laori* (Mhow, M.P.); *Chitawa* (Telugu); *Allkatti* (Tamil); *Manjakkanni* (Malayalam); *Kiraluwa, Kirala* (Sinhala).

Size: Partridge±; more leggy. **Field Characters**: A sandy brown plover with white belly, black cap and bright yellow fleshy lappets above and in front of the eyes. In flight, a white wing-bar conspicuous on the black wings. Sexes alike. Pairs, or small parties, on dry waste land. **Distribution**: Throughout the Indian Union excepting NE. India; Pakistan (part); Bangladesh; Sri Lanka. Not Myanmar. Resident and locally migratory. **Habits**: Inhabits dry open country and fallow land and is less dependent upon the neighbourhood of water than Redwattled lapwing. Also less noisy and demonstrative, but otherwise similar to it in general habits and food. **Call**: A sharp plaintive bisyllabic *ti-ee* uttered every couple of seconds, punctuated from time to time by a high-pitched, quick-repeated *twit-twit-twit-twit*. **Nesting**: *Season* — chiefly April to July. *Eggs* — 4, typical plovers' in shape, buff to olive stone-colour, irregularly blotched with dark brown and purplish grey. Laid on bare soil in dry wasteland, with the scrape sometimes encircled by pebbles. Both eggs and newly-hatched downy chicks are remarkably obliterative in their natural environment. As in Redwattled Lapwing, the parents demonstrate noisily when the nest or young are in danger, circling overhead frantically and diving at the intruder.

164. **Blackbellied** or **Grey Plover** *Pluvialis squatarola* (Linnaeus)

Plate 23

Syn. No. 372

Local name: *Bada batan* (Hindi, Bengali).

Size: Grey Partridge. **Field Characters**: Plumage in winter when the bird is commonly seen in India, has forehead and lores white speckled with black. Sides of head, neck, rump, upper tail-coverts and tail white, streaked or barred with brown. Otherwise dark brown above conspicuously scalloped with brownish grey. Below, foreneck, breast and flanks streaked and spotted with brown. Otherwise white. Sexes alike. Summer breeding plumage is black above, profusely barred and spangled with silvery grey or pearly white. Below chin to middle of abdomen black; lower abdomen and under tail-coverts white. Sexes alike.

In flight a large black oval patch under the wing, white rump and tail and a whitish wingbar conspicuous and distinctive at all seasons. **Distribution**: Winter visitor to the seaboard of the subcontinent. Also Andamans and Nicobars, Lakshadweep; Sri Lanka. As a rare passage migrant inland. Seen on seashore between tide marks. **Habits**: Gregarious, usually in flocks of up to 30 birds. Very wary. Flight, the typical, swift, twisting and turning flight of waders. **Food**: Insects, molluscs, etc. **Call**: A shrill musical piping similar to the Golden Plover's. Alarm call a double whistle. **Nesting**: — Extralimital, a few birds in non-breeding plumage summer in India.

165. **Golden Plover** *Pluvialis dominica* P.L.S. Müller

Plate 23

Syn. No. 372

Local names: *Chhota batan* (Hindi); *Sona batan* (Bengal); *Oleyiya, Rana watuwa* (Sinhala); *Kottan* (Tamil); *Manal kozhi* (Malayalam); *Nong-gang* (Manipuri).

Size: Partridge. **Field Characters**: Typical plover with thick head, slender bare legs, pigeon-like bill. Brown above, spangled with white and gold; whitish below mottled on breast with brown, grey, yellow. In flight narrow pointed wings *without wing-bar* and fanned-out *brown tail* conspicuous. In summer (breeding) plumage underparts black. On arrival in India (autumn) and before departure (spring) commonly with parti-coloured black and white underparts. Sexes alike. Flocks on wet pasture land, moist grassy edges of jheels, etc. **Distribution**: The Golden Plover (eastern race *fulva*) is a winter visitor practically throughout India; Lakshadweep, Andamans and Nicobars; Bangladesh; Pakistan; Sri Lanka; Myanmar. Breeds in N. Siberia, June/July. **Habits**: Typical plover. Runs about on moist grassland, stopping erect now and again and dipping forward steeply to pick up food — tiny snails, crabs, insects, berries, etc. When one bird rises in alarm the scattered flock follows almost simultaneously, wheeling and banking on rapidly beating wings in compact formation. **Call**: A clear high-pitched rather mournful double whistle *tu-ee*. Its palatability combined with its natural wariness and speed on the wing make it a coveted sporting bird.

166. **Little Ringed Plover** *Charadrius dubius* Scopoli

Plate 26

Syn. No. 380

Local names: *Zierrea, Merwa* (Hindi); *Jiria* (Bengal); *Kola katij* (Kashmiri); *Bytu ulanka, Rewa* (Telugu); *Punchi oleyiya* (Sinhala); *Sinna kottan* (Tamil); *Motira kozhi* (Malayalam).

Size: Quail-. **Field Characters**: A typical little plover with thick head, bare yellow legs, and short pigeon-like bill. Sandy brown above, white below. White forehead; black forecrown, ear-coverts and round the eyes. A complete black band round neck separates the white hindneck collar from back. Absence of white wing-bar distinguishes it in flight from the very similar Kentish Plover (*C. alexandrinus*). Sexes alike. Pairs or small scattered flocks by rivers, tanks, etc. **Distribution**: Throughout the subcontinent up to about 1500 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Smaller race *jerdoni* resident; larger *curonicus* winter visitor to the Indian Union and Sri Lanka. **Habits**: Essentially a bird of mudflats, shingle banks and sandpits by rivers, estuaries and tanks. Scattered parties run about in short spurts with a swift mincing gait, stopping abruptly now and again to pick

up some tit-bit in the characteristic plover manner. Coloration remarkably obliterative; birds often completely invisible till betrayed by movement. Though scattered when feeding, the party flies off together on alarm, uttering a short plaintive whistling *phiu*, twisting and wheeling in the air in unison. **Food**: Insects, sand-hoppers, tiny crabs, etc. **Nesting**: *Season* — Chiefly March to May but varies with latitudes. *Eggs* — 4, buffish stone to greenish grey with hieroglyphic scrawls and spots of dark brown, and phantom purple markings. Of the typical 'peg-top' shape of all plovers' eggs, broad at one end abruptly pointed at the other. Laid on bare shingle on sandbanks where they harmonize perfectly with their surroundings.

167. **Kentish Plover** *Charadrius alexandrinus* (Linnaeus)

Plate 26

Syn. No. 381

Local names: Unspecific and general. *Sinna Kottan* (Tamil); *Manal kozhi* (Malayalam).

Size: Grey Quail-. **Field Characters**: Very similar to Little Ringed Plover (166). In non-breeding plumage, the blackish legs, narrow eye stripe, the white forehead continued as supercilium and a small dark patch on upper breast separates it from the Little Ringed Plover. In the breeding plumage, the male has contrasting head marking and a bright rufous crown absent in the resident south Indian race (*seebohmi*), white collar on nape continuous with white back. In flight a narrow white wing-bar and prominent white sides of tail distinctive. **Distribution**: The nominate race breeds in Pakistan (Baluchistan) and is a winter visitor along the Indian sea coast and the Nicobars. A resident race in south India and Sri Lanka. **Habits**: Similar to Little Ringed Plover's with which it could be easily confused. Seen in mixed flocks with other waders. **Food**: Insects and crustacea. **Call**: A shrill double alarm note and a soft *trr* when taking flight. **Nesting**: *Season* — March to August, chiefly May and June in Gujarat. April to August in south India. *Nest* — a depression in sand above tide mark on seashore or in dry river bed. Among vegetation. *Eggs* — 3, sometimes 2 or 4, shades of sandy brown marked with blackish and sometimes tinged with green. Both parents share parental duties and give broken wing distraction displays.

168. **Lesser Sand Plover** *Charadrius mongolus* Pallas

Plate 26

Syn. No. 384

Local names: *Oleyiya* (Sinhala); *Kottan* (Tamil); *Manal kozhi* (Malayalam).

Size: Grey Quail. **Field Characters**: A typical plover with thick round head, bare greenish grey legs and short pigeon-like black bill. Above sandy grey brown, below white in winter. Forehead fulvous, ear-coverts brownish conspicuous as a dark patch behind eyes on the white head. White collar and hind-neck and upper breast and flanks. In summer forehead and sides of head black; crown pale chestnut, separated from the white throat by black half collar. **Distribution**: The commonest wader in winter of the entire Indian seaboard, Andamans and Nicobars and Sri Lanka. Breeds in Ladakh, Lahul and Sikkim between *c.* 3900 and 5500 m. **Habits**: Gregarious, often in large exclusive flocks or mixed with other species on tidal mudflats. Typically running about in bursts of quick mincing steps to pick up titbits. **Food**: Chiefly small crabs, sand hoppers and marine worms. **Call**: Silent in winter

uttering a *trr* or *twip* when flying off. In the breeding areas has a distinctive *tk-tarr-tatrrwhee* resembling the call of an Indian nightjar. **Nesting**: *Season* — June-July in Ladakh, Lahul and Spiti. *Nest* — an unlined scrape or depression near the margin of a lake or bog. *Eggs* — 3, pyriform, pale green, or khaki, stippled with reddish brown. Both parents attend to parental duties.

169. **Whimbrel** *Numenius phaeopus* (Linnaeus)

Plate 24

Syn. No. 385

Local names: *Chhota goungh, Chhota gulinda* (Hindi, Bengal); *Chhota guinyar* (Bihar); *Tetti kokku* (Malayalam); *Maha watuwa* (Sinhala); *Kuthirai malai kottan* (Tamil); *Bulithumbi, Buluthunga, Orana* (Maldives).

Size: Country hen. **Field Characters**: Distinguished from the Curlew by the smaller size, dark crown with a whitish centre stripe ('centre parting') and long white superciliary stripes. **Distribution**: Winter visitor in two distinct races to the seaboard of the subcontinent, Andamans, Nicobars, Lakshadweep; Sri Lanka and Maldives. Usually on the seacoast, mangroves, etc. Occasionally inland on passage. **Habits**: Similar to Curlew's but smaller and more gregarious. Usually in flocks of 5 to 15, probing in the soft mud in tidal flats and mangrove lined creeks. Swift on the wing and wary. **Food**: Snails and crabs, fiddler crabs contributing substantially. **Call**: A repeated musical 7 to 9 syllabled *tetti-tetti-tetti-tet* distinctive even on nocturnal migratory flights. **Nesting**: Extralimital.

170. **Curlew** *Numenius arquata* (Linnaeus)

Plate 24

Syn. No. 388

Local names: *Goar, Gounch, Bada gulinda* (Hindi); *Choppa, Sada kastachura* (Bengal); *Guinyar* (Bihar); *Borindo* (Sind); *Maha watuwa* (Sinhala); *Khalili* (Gujarat); *Kuthirai malai kottan* (Tamil); *Valkokku* (Malayalam).

Size: Village hen. **Field Characters**: A darkish sandy brown wading bird, streaked with black and fulvous to produce the well-known 'game-bird pattern'. Lower back and rump white, conspicuous in flight. Its most characteristic feature is the downcurved slender bill twelve or fifteen cm (5 or 6 in.). Sexes alike. Singly or small parties, on jheels, rivers and the seashore. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Winter visitor; chiefly the race *orientalis* with finely streaked underparts. **Habits**: Runs or stalks along the water's edge or on the seashore at low tide, probing into soft ooze for food; molluscs, crustaceans, insect larvae, etc. Also eats berries of marsh plants, grass shoots, seaweed and other vegetable matter. **Call**: A shrill and wild, plaintive scream *coor-lee* or *cur-lew* uttered chiefly on the wing. Usually exceedingly wary and difficult to circumvent. A good sporting bird and esteemed for the table. **Nesting**: *Season* — in N. Europe east to Siberia, April to June.

171. **Blacktailed Godwit** *Limosa limosa* (Linnaeus)

Plate 24

Syn. No. 389

Local names: *Gudera, Gairiya, Jangral, Khag* (Hindi); *Susling* (Sind); *Malgujha* (Nepal, Bihar); *Jaurali* (Bengal); *Tondu ulanka* (Telugu).

Size: Partridge+. **Field Characters**: A variegated brown and white wader very like the Whimbrel or Curlew in general effect, but with a slender, straight, slightly upcurved bill. In flight the broad black band across end of white tail, and a white band along the trailing edge of the wings are diagnostic points. In summer plumage, sometimes acquired before emigration in March/April, the head, neck and breast become rusty red. Sexes alike. Small parties or large flocks on marshy jheels and tidal mudflats. **Distribution**: Winter visitor to practically all India; Bangladesh; Pakistan; Sri Lanka; Myanmar; in two races which breed from N. Europe and E. Siberia to Japan. **Habits**: Similar to those of the Curlew and Whimbrel. Keeps to marshes of both fresh and brackish water, often in large close-packed flocks and in association with other waders. **Food**: Worms, molluscs, crabs, insects. Godwits are excellent for the table, and this combined with their swift flight and ever watchful alertness makes them good sporting birds, eagerly sought by sportsmen.

172. **Bartailed Godwit** *Limosa lapponica* (Linnaeus)

Plate 24

Syn. No. 391

Local names: *Gudera, Gairiya, Fangral, Khag* (Hindi); *Susling* (Sind); *Malgujha* (Bihar); *Jaurali* (Bengal); *Tondu ulanka* (Telugu).

Size: Country hen. **Field Characters**: Similar to the Blacktailed Godwit, dark patterned sandy brown in winter, but shorter in the legs and with bill slightly upturned. Distinguished in flight by the absence of white wing bar and particoloured black and white tail and the shorter protruding legs. Sexes alike. The breeding plumage which they obtain often before departure for the breeding grounds has in the male, the whole head, neck and underparts chestnut-red or cinnamon. The female is duller and more brownish. **Distribution**: Winter visitor. Coasts of western India; Nicobars; Pakistan; Sri Lanka. Two races. More or less exclusively a saltwater species. Rarely inland. **Habits**: Usually a component of large flocks of waders as Blacktailed Godwits, Dunlins, etc. **Food**: Marine invertebrates, insects. **Call**: Alarm call a double syllabled *te-ten, te-ten* or *chitiu chitiu chitiu*. **Nesting**: Extralimital.

173. **Spotted** or **Dusky Redshank** *Tringa erythropus* (Pallas)

Plate 25

Syn. No. 392

Local names: *Batan, Gatni, Surma* (Hindi); *Yerra kal ulanka* (Tamil); *Ngahoibi* (Manipur).

Size: Grey partridge±. **Field Characters**: Medium sized greyish brown and white wader with long orange-red legs and slender straight bill. Distinguished from the Redshank by the outer secondaries being barred brown and white; the white back and rump, barred tail-coverts and larger legs and bill. In flight the absence of the broad white bar along trailing edge of wing separates it from the Redshank. **Distribution**: Winter visitor to the subcontinent

including Nepal and Sri Lanka. **Habits**: Affects jheels and tanks, inland marshes and reservoirs and tidal creeks and estuaries, less common than Redshank. Seen in compact flocks feeding in fairly deep water often up-ending like ducks to reach the bottom. **Food**: Aquatic invertebrates, insects and larvae. **Call**: A shrill piping *tiu-it* or *tiu-tiu-tiu* similar to Redshank's and likely to be confused with it. **Nesting**: Extralimital.

174. **Redshank** *Tringa totanus* (Linnaeus)

Plate 25

Syn. No. 393

Local names: *Chhota batan* (Hindi); *Mali kottan, Segappu kal ullan* (Tamil); *Maha watuwa* (Sinhala); *Ngahoibi* (Manipur).

Size: Partridge-. **Field Characters**: A large sandpiper, greyish brown above, white below finely streaked with brown on breast. In flight, white lower back and rump prominent; also the broad white semi-circular band along the trailing edge (hind border) of wing, and the long slender *red* legs projecting behind. Tail white, barred with brown. In summer (breeding plumage) upperparts somewhat streaked and spotted with black and fulvous, and breast more heavily streaked with brown. Sexes alike. Singly, or small flocks, at jheels, estuaries, etc. **Distribution**: Breeds in Kashmir and Ladakh. Winter visitor. The entire Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: Typical sandpiper. Often seen in mixed flocks with other species. The flushing notes of this species and the Greenshank are rather similar, a shrill piping *tiwee-tiwee-tiwee* or *tiu-tiu-tiu*. **Nesting**: *Season* — within Indian limits. May to July. *Eggs* — 4, yellowish to greenish stone-colour, handsomely blotched with reddish brown or purplish black with underlying lavender or reddish grey spots. Laid in a depression within a grass clump near a bog.

175. **Marsh Sandpiper** *Tringa stagnatilis* (Bechstein)

Plate 25

Syn. No. 395

Local names: *Chota gotra, Biler balubatan* (Bengal).

Size: Grey Partridge-; length *c*. 25 cm. **Field Characters**: A dainty smaller version of the Greenshank (176) including absence of wing-bar. In winter, forehead, supercilium, sides of head, lower back and rump pure white; otherwise greyish brown above. Below immaculate white, sides of breast marked brown; bill black, almost straight; slender green legs. Sexes alike. Summer, sandy grey above with dark angular spots on back. Below white; foreneck and upper breast brown spotted, flanks irregularly barred. **Distribution**: Winter visitor, the subcontinent; Nepal; Sri Lanka. **Habits**: Seen along swamp edges of freshwater ponds, jheels, paddy fields, etc.Rarer in estuaries and tidal mudflats. In small parties in company with other sandpipers randomly prospecting by pivoting in semi-circles. **Food**: Insects and other invertebrates; also small frogs. **Call**: A shrill, piping double *che-weep, che-weep* as the bird rises and flies off. **Nesting**: Extralimital.

176. **Greenshank** *Tringa nebularia* (Gunnerus)

Plate 25

Syn. No. 396

Local names: *Tantana, Timtima* (Hindi); *Gotra* (Bengal); *Peria kottan* (Tamil); *Maha watuwa* (Sinhala); *Pachakkali* (Malayalam); *Timbla* (Marathi).

Size: Grey Partridge±; length 36 cm. **Field Characters**: Largest among Indian Sandpipers. Distinguished from Marsh Sandpiper by larger size; from the Redshank by the absence of a wing bar seen in flight, the olive-green (v.) red legs and slightly upturned bill. Forehead, lower back, rump and the faintly barred tail, white. Above dark greyish brown, below white except greyish foreneck and sides of head. Sexes alike. In summer darker and richer above, feathers of the back and scapulars with broad black centres; foreneck and sides of breast with dark brown spots on white. **Distribution**: Winter visitor throughout India, Andamans and Nicobars; Pakistan; Bangladesh; Sri Lanka. On passage inland; seen on the margin of both freshwater and marine water spreads. **Habits**: Usually solitary or in small parties. Often in the company of the Redshank. Has the habit of moving at a run in a straight line with neck outstretched and bill submerged. **Food**: Insects and other invertebrates. Occasionally tadpoles, even frogs. **Call**: Similar to Redshank, but of lower pitch. **Nesting**: Extralimital. Northern Europe and Asia up to the Arctic circle.

177. **Wood** or **Spotted Sandpiper** *Tringa glareola* Linnaeus

Plate 25

Syn. No. 398

Local names: *Chupka, Chobaha, Titvari* (Hindi); *Balu batan* (Bengal); *Chinna ulanka* (Telugu); *Kata kokku* (Malayalam); *Sili watuwa* (Sinhala); *Kottan, Vaya ullan* (Tamil).

Size: Grey Quail±. **Field Characters**: A snipe-like wader, sepia brown above, indistinctly spotted with white. Lower back and rump white. Breast pale brownish. Whitish stripe above eye from bill to nape. Summer (breeding) plumage brighter, with spots more defined. In flight, the white rump and barred brown-and-white tail diagnostic. No wing-bar. Sexes alike. Singly or small flocks, at jheels and marshes. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Winter visitor. **Habits**: One of the commonest and also most gregarious of the group of little wading birds found near inland waters and at marshes, flooded paddy fields and tidal mudflats, popularly and collectively known as 'snippets'. They run along on the squelchy mud picking up tit-bits, or probe with their bills for food; insects, larvae, worms and molluscs, wagging the tail end of the body ridiculously up and down. The flushing notes of the different species are useful pointers to their identity. The Spotted Sandpiper utters a shrill *chiff-chiff-chiff* as it makes off. **Nesting**: *Season* — in Europe and N. Asia, May-June. *Nest* — a scantily lined depression on a dry patch in marshy grass-covered localities.

178. **Terek Sandpiper** or **Avocet Sandpiper** *Tringa terek* (Latham)

Plate 25

Syn. No. 400

Local name: None recorded.

Size: Grey Quail. **Field Characters**: Distinguished by its long, slender, upcurved bill and short orange-yellow legs; by the pale ashy brown rump and white trailing edge of dark wings conspicuous in flight. Winter plumage greyish brown above with white forehead and supercilia white below. Sexes alike. Summer (breeding) bold black streaks forming a V-shaped mark on back; sides of head and neck and breast with distinct brown striations. **Distribution**: Winter visitor to the Indian, and Andaman and Nicobar coastal habitats of seashore, mangroves, tidal creeks, mudflats and lagoons. Pakistan; Bangladesh; Sri Lanka. Inland on passage. **Habits**: Seen in small flocks of 10 to 15 actively feeding on the intertidal seashore, mudflats, etc. Dives to escape attacks and surfaces some distance away. Rest at high tide in tight flocks on sandspit or rocks. **Food**: Insects and other invertebrates. **Nesting**: Extralimital. Breeds in North Russia, Siberia.

179. **Common Sandpiper** *Tringa hypoleucos* Linnaeus

Plate 25

Syn. No. 401

Local names: *Polte ulanka* (Telugu); *Kottan* (Tamil); *Sili watuwa* (Sinhala); *Neerkata* (Malayalam); *Samanya tutvari* (Gujarati); *Findon* (Maldive Islands).

Size: Quail±. **Field Characters**: Greyish olive-brown above, white below with pale dusky breast and a few dark streaks on foreneck. In flight the *brown* rump and tail (excepting only the white outer feathers) distinguish it from the Spotted Sandpiper. Also a prominent wing-bar usually present. Sexes alike. Singly, at ponds, tanks, tidal creeks and on rocky seashore. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Winter visitor. **Habits**: One of our earliest immigrants (August) and also one of the last to leave (May). A few non-breeding individuals remain in their winter quarters all the year. Never collects in flocks, but a few scattered examples sometimes seen together as when driven up the seashore rocks by the rising tide. Flies with characteristic stiff rapidly vibrating wing strokes close over the water, uttering a shrill piping *tee-tee-tee*. Besides this flushing note has a pretty, long-drawn trill *wheeit, wheeit* repeated several times when the bird is perfectly undisturbed. **Food**: As of other sandpipers, insects, worms, molluscs, etc. **Nesting**: *Season* — in Indian limits (Kashmir, Garhwal, Kumaon, etc.) May/June. *Nest* — a slight depression sparsely lined with leaves and rubbish, on a shingle bank or islet at midstream. *Eggs* — 4, yellowish buff or stone-colour, blotched and speckled with reddish brown, with phantom marks of lavender or pinkish grey.

180. **Turnstone** *Arenaria interpres* (Linnaeus)

Plate 25

Syn. No. 402

Local names: *Tirakkata* (Malayalam); *Ratafy* (Maldives); *Oleyiya* (Sinhala); *Kottan* (Tamil).

Size: Grey Quail±; length 22 cm. **Field Characters**: Distinguished by the immaculate white chin and throat. Straight, black bill and orange-red legs. Sexes alike. Winter plumage

dark brown-and-white above with lower back rump, tail-coverts white, dark brown crossbar on tail-coverts. Tail dark brown with white tips and outer most pair of feathers white. In flight white back and dark pectoral band, pointed wings white wing-bar and shoulder patch with brightly coloured legs are distinctive. Summer (breeding), black band from forehead to eye; rest largely black and deep rufous. Underparts white, foreneck, sides of breast and a partial collar on side of neck black. **Distribution**: Winter visitor to the Indian seacoast favouring rocky shores. Also Andaman and Nicobars; Pakistan; Bangladesh and Sri Lanka. Rarely seen inland. **Habits**: Usually in small parties, turning over algae and poking under stones, moving with the waves up and down the beach. **Food**: Marine invertebrates. **Nesting**: Extralimital. Arctic coasts from North Europe to Siberia.

181. **Pintail Snipe** *Gallinago stenura* (Bonaparte)

Plate 24

Syn. No. 406

Local names: *Chaha* (Hindi); *Chegga, Kadakhocha* (Bengal); *Khocha sordi, Chaha sorai, Chergya* (Assam); *Bharak* (Nepal); *Cheklaobi* (Manipur); *Mor ullan, Ullan kuruvi, Korra kuthi* (Tamil); *Muku puredi* (Telugu); *Keswatuwa* (Sinhala); *Dao didap* (Cachar); *Voh ti alin* (Kuki); *Ti inrui* (Naga); *Lik pakhi* (Sind); *Chuntan kata* (Malayalam); *Garkhod* (Gujarati); *Pan lawa* (Marathi).

Size: Grey Quail+. **Field Characters**: Difficult or impossible to separate from the Fantail Snipe in the field, but comparatively darker and heavier, with less zigzagging flight and often on drier ground. Always 'squeals' when handled for ringing unlike the Fantail. Outer tail feathers short and stiff. **Distribution**: Winter visitor throughout the country including the Andamans and Nicobars, particularly to south India where it practically replaces the Fantail Snipe. Also Pakistan; Bangladesh; Sri Lanka. Usually in marshy areas and often on semi-dry or dry fallow land. **Habits**: Seen singly or wisps of small numbers. Larger flocks at beginning of inward and outward migration. Crepuscular and nocturnal, probing squelchy mud for food. Rests during the day on the ground but seldom spotted owing to obliterative coloration. **Food**: Chiefly worms, larvae and molluscs. **Call**: A distinctive *pench* when flushed and taking wing, also in flight. **Nesting**: Extralimital.

182. **Common** or **Fantail Snipe** *Gallinago gallinago* (Linnaeus)

Plate 24

Syn. No. 409

Local names: *Chaha* (Hindi); *Chegga, Kadakhocha* (Bengal); *Khocha sorai, Chaha sorai, Chergya* (Assam); *Bharak* (Nepal); *Cheklaobi* (Manipur); *Mor ullan, Ullan kuruvi, Korra kuthi* (Tamil); *Muku puredi* (Telugu); *Keswatuwa* (Sinhala); *Dao didap* (Cachar); *Voh ti alin* (Kuki); *Ti inrui* (Naga); *Lik pakhi* (Sind); *Chuntan kata* (Malayalam); *Garkhod* (Gujarati); *Pal lawa* (Marathi).

Size: Quail+. **Field Characters**: An obliteratively coloured marsh bird with straight slender bill about 5 cm (2.5 in.) long. Dark brown above, streaked with black, rufous and buff; whitish below. Sexes alike. Singly or in wisps, on marshes. **Distribution**: Practically the entire Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. The nominate race concerns us. Resident in Kashmir and the Himalayas; winter visitor elsewhere. **Habits**: Arrives in

the plains about September; leaves by April. Frequents squelchy paddy stubbles, and grassy margins of jheels, tidal creeks, etc. Completely invisible when crouching on mud, even in the open. Flushes abruptly on close approach of observer with a characteristic harsh note - *pench* or *scape* - and flies off at great speed in a series of lightning zigzags. This is what supplies the element of 'sport' to snipe shooting and is usually responsible for disappointing bags. **Food**: Worms, insect larvae, etc., obtained by probing into soft mud with the long, slender bill. **Nesting**: *Season* — in Kashmir and the Himalayas, May/June. *Nest* — a shallow grass-lined depression in grassy marshland. *Eggs* — 4, variable, yellowish stone-colour or olive-green blotched or mottled with chocolate-brown or black.

183. **Jack Snipe** *Gallinago minima* (Brünnich)

Plate 24

Syn. No. 410

Local names: *Chhota Chaha* (Hindi); *Chhota bharka* (Nepal); *Ullan* (Tamil); *Do lagin* (Bihari mirshikars).

Size: Length (including bill) 21 cm. **Field Characters**: Smallest among the snipes, lacks the central crown stripe of other snipes. A smaller version of the Fantail Snipe but lacks its whitish tips of the outer rectrices. Sexes alike. Flies sluggishly and without the zigzagging of other snipes. **Distribution**: Winter visitor throughout the Indian region including Andamans and Sri Lanka. **Habits**: Affects swampy jheels, etc. Usually seen singly, flushes out silently. Slower in flight than other snipes. **Food**: Insects and other invertebrates and seeds. **Nesting**: Extralimital, breeds from North Europe to Siberia.

184. **Woodcock** *Scolopax rusticola* Linnaeus

Plate 24

Syn. No. 411

Local names: *Simteetar, Tuteetar* (Hindi); *Sim kutra* (Kumaon and Nepal); *Chinjarole* (Chamba); *Daodidap gadeba* (Cachar); *Simpookhlaw* (Khasi); *Sabal Kaodruk* (Manipur); *Wilaiti chaha* (Chittagong); *Bumpal, Dhabha* (Chitral); *Gherak* (Drosh); *Chustrak* (Gilgit); *Zar batchi* (Kashmir).

Size: Length (including bill) *c.* 36 cm. **Field Characters**: A large snipe cryptically coloured. Mottled brown, black and white with distinguishing long bill swollen at the tip. Legs short. Sexes alike. **Distribution**: Himalayas in summer, eastern hills and the Nilgiris and moist southern strip of the Western Ghats in winter. Stray records in between as evidence of its migratory movement. **Habits**: In the Himalayas affects swampy glades with dense undergrowth. In South India sholas, evergreen forests and coffee and cardamom plantations with swamps. Usually solitary or in pairs. Crepuscular. Feeds by probing soft earth and leaves characteristic patches of honeycombed earth as evidence of its presence. **Food**: Worms and grubs, also seeds and shoots occasionally. **Call**: The displaying or "roding" male utters a loud wailing cry or croak, occasionally a bat-like squeak, while flying slowly in a high arc back and forth across a glade or circling around in wide circles. **Nesting**: *Season* — In the Himalayas, April to July. *Nest* — a depression in the ground well camouflaged amidst bracken. *Eggs* — 4, pale clay to deep buff. Female alone incubates (20-21 days) and tends young. Has the habit of shifting young to safety by carrying them pressed against breast and thighs.

185. **Sanderling** *Calidris alba* (Pallas)

Plate 26

Syn. No. 414

Local names: None recorded.

Size: Grey Quail. **Field Characters**: Separated from similar shore birds by the slender straight bill, overall pale coloration and blackish shoulder patch. In flight the white general colour and a conspicuous white wing-bar are diagnostic. **Distribution**: Winter visitor to the subcontinent; Sri Lanka. Common on eastern seaboard, less so on the west. **Habits**: Gregarious; seen in large flocks. Very active on the edge of the surf. Recognised by its ceaseless activity. Flocks fly in regimented unison. **Food**: Aquatic invertebrates. **Call**: A shrill *wick-wick* when flushed or in flight. **Nesting**: Extralimital - NE. Siberia and NW. Alaska.

186. **Little Stint** *Calidris minuta* (Leisler)

Plate 26

Syn. No. 416

Local names: *Chhota pankowwa* (Hindi); *Runni* (Bihari mirshikars); *Tanki* (Baluchistan — for all small waders); *Kosu ullan* (Tamil).

Size: Quail-. **Field Characters**: A diminutive wader, mottled greyish brown or dusky above white below, with *blackish* legs and bill. Rump and middle tail feathers dark brown, outer tail feathers smoky brown. In flight, a faint narrow whitish bar on the pointed wings noticeable. Summer plumage richer — more black and rufous. Sexes alike. Flocks on tidal mudflats, tank margins, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Winter visitor. **Habits**: Sociable and gregarious. Keeps in flocks, often mixed with other small waders. Affects marshes inland, and tidal mudflats on the seaboard. The flock spreads itself out to feed, running about actively on the mud, picking up tiny insects, crustaceans, and molluscs. When disturbed, the birds fly off swiftly, all together in an orderly compact mass, their white undersides flashing in the sun from time to time as they turn and twist in unison. **Call**: A soft musical *wit-wit-wit* or a low *tr-rr* uttered on the wing. **Nesting**: *Season* — in NE. Europe and Siberia, June/July. *Nest* — a cup-shaped depression lined with willow leaves, on grassy marshland. *Eggs* — 4, pyriform, greenish to buffish stone-colour, spotted and blotched with reddish brown. An adult ringed in the Alma-Ata region of USSR on 9.8.1977 was recovered at Pt. Calimere in Tamil Nadu on 25.8.1990, 13 years 16 days after ringing.

187. **Temminck's Stint** *Calidris temminckii* (Leisler)

Plate 26

Syn. No. 417

Local names: *Chhota pankowwa* (Hindi); *Runni* (Bihari mirshikars); *Tanki* (Baluchistan - for al small waders); *Kosu ullan* (Tamil).

Size: House Sparrow+. **Field Characters**: Similar to Little Stint but distinguished from it by the pure white outer tail feathers (*v.* brownish) and olive-green legs. No white stripes on back. Almost identical in plumage and leg colour to the Common Sandpiper but smaller in size. **Distribution**: Winter visitor to the entire subcontinent including Andamans; Nepal; Sri Lanka. On the sea coast and inland waters. **Habits**: Keeps in mixed flocks with the

Little Stint and other waders. Flies straight up like a snipe when flushed. **Food**: Marine invertebrates and insects. **Call**: Alarm call a high pitched trilling twitter different from that of the Little Stint. **Nesting**: Extralimital, through Scandinavian alpine zone through the Eurasian tundra.

188. **Dunlin** *Calidris alpina* (Linnaeus)

Plate 26

Syn. No. 420

Local names: None recorded.

Size: Grey Quail-. **Field Characters**: In winter likely to be confused with Curlew Sandpiper but bill less down-curved towards the tip. In flight distinguished from Curlew Sandpiper by the *blackish* (*v.* white) upper tail-coverts. Mottled greyish brown above, white below with a diffused streak of a band across breast. Sexes alike. Summer plumage a distinctive deep rufous, scalloped with black. Below white with centre of breast and abdomen black. **Distribution**: Common winter visitor to north western seaboard. Sparse inland throughout northern and peninsular India. **Habits**: Affects seashore, tidal mudflats, creeks, river bank, flooded fields. Gregarious, in mixed flocks with other waders. Flies in packed formation at great speed. **Food**: Aquatic invertebrates, insects, sometimes seeds. **Call**: A rather shrill *tue-ep* or *wee-wee-et*. **Nesting**: Extralimital in the circumpolar regions of N. America, Europe and Asia.

189. **Curlew Sandpiper** *Calidris testacea* (Pallas)

Plate 26

Syn. No. 422

Local names: None recorded.

Size: Grey quail. **Field Characters**: Easily confused with Dunlin in winter but its slightly larger size, longer legs, similarly downcurved but slenderer bill are diagnostic. Greyish brown *above* with a fine dark mottling; white with breast washed brown *below*. In flight separated from Dunlin by its *white* upper tail-coverts. The mainly chestnut summer plumage is quite distinct from Dunlin's. **Distribution**: Common winter visitor to the entire seaboard of the subcontinent - Andamans and Nicobars; Sri Lanka. Inland on passage. **Habits**: Seen in large flocks on mudflats, creeks, saltpans, marshes, etc., in association with other waders. **Food**: Aquatic invertebrates. **Call**: not recorded. **Nesting**: Extralimital - extreme N. Asia from 80°E. A long distance migrant; an adult ringed in Australia (CSIRO, Canberra, ring 040-9243 on 20-11-1976) was recovered at Pt.Calimere, Tamil Nadu, presumably the bird being on its way to its favourite wintering grounds in Australia after breeding.

190. **Broadbilled Sandpiper** *Limicola falcinellus* (Pontoppidan)

Plate 26

Syn. No. 424

Local names: None recorded.

Size: Grey Quail±. **Field Characters**: Can be confused with Dunlin and Curlew Sandpiper with similar slightly downcurved bill. Dark mottled greyish brown *above*, white *below*, somewhat streaked on breast. Rump, upper tail-coverts and middle rectrices brown as in Dunlin. Prominent white supercilium and black wing shoulder-patch distinctive. **Distribution**: Winter visitor to the Indian seaboard and Andamans and Nicobars; also

Pakistan; Bangladesh and Sri Lanka. Less common inland. **Habits**: Tidal mudflats, muddy creeks and sandbanks on large rivers. Feeds by picking food as does a Sandpiper, and not by probing its bill in soft mud as does a Dunlin. **Food**: Aquatic invertebrates. **Call**: A twittering call when flushed. **Nesting**: Extralimital.

191. **Ruff and Reeve** *Philomachus pugnax* (Linnaeus)

Plate 26

Syn. No. 426

Local names: *Gehwala, Bagbad* (Hindi); *Geowala* (Bengal).

Size: Male (Ruff) = Partridge; female (Reeve) = Quail+. **Field Characters**: A rather dumpy greyish brown wader with bold scaly patterned upper plumage and relatively short sandpiper-like bill. In flight a narrow white wing-band and whitish patches on either side at base of tail, suggestive clues. Sexes alike, but Reeve considerably smaller. In summer plumage, sometimes partially acquired before emigration (April/May). Ruff extremely variable with much black, white, purple, chestnut, and buff in it, and with a peculiar ruff and ear tufts. Reeve as in winter, but blacker above. Flocks on marshes and tidal mudflats, etc. **Distribution**: Winter visitor to practically all India; Bangladesh; Pakistan; Sri Lanka; Myanmar. Commoner in N. India. Breeds in temperate Europe and N. Asia. **Habits**: Gregarious; on first arrival in N. India sometimes seen in enormous concentrations. Behaviour, food, etc. not markedly different from other migrant waders, but takes larger quantities of weed seeds. A good sporting bird. Ruff best known for its promiscuous breeding habits and its fantastic communal sparring tournaments or courtship displays. A number of Ruffs in variegated breeding plumages gather at selected spots known as 'leks' or 'hills', each occupying an adjacent 'territory' of a few square inches. The neighbours posture threateningly with ruff and ear tufts erected, legs flexed, head lowered, bill pointing to ground, and tilt and leap at one another. Ready-to-breed females visit the 'hills' from time to time and mate with the Ruff of their choice. He takes no part in the nesting chores.

192. **Painted Snipe** *Rostratula benghalensis* (Linnaeus)

Plate 24

Syn. No. 429

Local names: *Rajchaha* (Hindi); *Ohari* (Nepal; Bihar); *Baggarji* (Bengal); *Pan kauva* (Gujarat, Maharashtra); *Myle ulan* (Tamil, Madras); *Ullan kuruvi* (Tamil, Sri Lanka); *Kalikata* (Malayalam); *Raja watuwa, Ulu keswatuwa* (Sinhala); *Kangdruk* (Manipur); *Daodidap gajao* (Cachar, Assam).

Size: Quail+. **Field Characters**: A typical rail with long, straight and slender snipe-like bill, slightly decurved at tip. Upper plumage chiefly metallic olive-green with buff and blackish streaks and markings; lower plumage chiefly brown and white. Whitish 'spectacles' with a white patch behind eye and white bands over shoulders to sides of breast (like straps of a rucksack), distinctive. Male less showy than female, lacking the chestnut and black on neck and breast. Singly or in wisps, in reedy swamps. **Distribution**: Throughout the Indian Union up to 1500 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. **Habits**: Affects reed-covered swamps, margins of jheels and tanks, and inundated paddy fields. Largely crepuscular. Often flushed when snipe shooting, but it is a feeble and clumsy flier, indifferent as a table bird and hardly worth powder and shot. A typical rail also in its other habits and behaviour. The female, as in the bustard-quails, is polyandrous and the dominant partner in the courtship ceremonials. She also fights rival

hens for the possession of an eligible cock. **Call**: A deep, hollow *oook* likened to the sound produced by blowing softly into a bottle. **Food**: Paddy grains, vegetable matter, insects, worms and molluscs. **Nesting**: *Season* — practically all year. *Nest* — a pad of rush stems on marshy ground or on *bunds* separating irrigated rice fields. *Eggs* — 3 or 4, yellowish stone colour, blotched and streaked with brown.

193. **Blackwinged Stilt** *Himantopus himantopus* (Linnaeus)

Plate 22

Syn. No. 430

Local names: *Gaz paon, Tinghur* (Hindi); *Sargain* or *Sargyne* (Bihari mirshikars); *Lal gon, Lal thengi, Lam gora* (Bengal); *Gusling* (Sind); *Pavilla kal ullan* (Tamil).

Size: Partridge±; with bare slender legs about 25 cm (10 in.) long. **Field Characters**: A lanky black, greyish brown and white wading bird with a straight slender black bill and enormously long, thin reddish legs. The sexes differ in details of coloration, as also the summer and winter plumages. Pairs or flocks at jheels, etc. **Distribution**: The Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory; also winter visitor. **Habits**: Affects marshes, jheels, village tanks, salt pans and tidal mudflats. Its stilt legs enable it to wade into comparatively deep water where it probes into the squelchy bottom mud for worms, molluscs, aquatic insects, etc., head and neck submerged at a steep angle and hind part of body sticking out, rather like duck up ending. Also swims well. Flight weak and flapping with neck extended and long red legs trailing beyond the tail. **Call**: A squeaky, piping *chek-chek-chek*, somewhat like a moorhen's, uttered when alarmed and flying off. **Nesting**: *Season* — principally April to August. *Nest* — a depression in the ground on the margin of a jheel, or a raised platform of pebbles in shallow water, lined with vegetable scum or flags of reeds. Often breeds in large colonies. *Eggs* — 3 or 4, light drab in colour, densely blotched with black; closely resembling eggs of Redwattled Lapwing.

194. **Avocet** *Recurvirostra avosetta* Linnaeus

Plate 22

Syn. No. 432

Local names: *Kusya chaha* (Hindi); *Kooni arichichan* (Tamil).

Size: Partridge+. **Field Characters**: An elegant black-and-white marsh bird with long bare bluish legs. Its chief diagnostic feature is the slender black upcurved bill. Sexes alike. Pairs or parties, at marshes and on tidal mudflats, etc. **Distribution**: The entire Indian Union, rare in the NE., sparse in the south; Pakistan; Sri Lanka. Not Bangladesh. Rare in Myanmar. Chiefly winter visitor, but partly also resident. **Habits**: Runs about actively on squelchy ground and wades into shallow water for food. The partially webbed toes enable it also to swim with ease. Occasionally in large flocks. In feeding the curiously upturned bill is wielded rather like a hockey stick, the curved part skimming the semi-liquid mud with a back and fore rotatory or churning motion, washing out the food particles; small crustacea, worms, aquatic insects, etc. **Call**: A clear, loud, high-pitched *kleet* repeated quickly, usually on the wing. **Nesting**: *Season* — at the only known breeding place within Indian limits, the Great Rann of Kutch — April. *Eggs* — 4, closely resembling those of both the Stilt and the Redwattled Lapwing in shape, colour and markings. Laid on bare sunbaked ground, on the surface or in a shallow depression. Colony of many nests a few metres from one another.

195. **Crab Plover** *Dromas ardeola* Paykull

Plate 22

Syn. No. 434

Local Names: *Eshunga, Tayrew*a (Maldive Is.); *Commermelmova* (Car Nicobar)

Size: Grey partridge+. **Field Characters**: A rather stout piebald oceanic littoral wader distinguished from other black and white waders in flight by the overall white plumage, black back, black eye patch, and the heavy tern-like black bill. Sexes alike. **Distribution**: Winter visitor to the coasts of India including the Andamans and Nicobars. Also Pakistan; Bangladesh(?); Sri Lanka. On passage inland. **Habits**: Affects tidal mudflats, estuaries, lagoon shores, exposed coral reefs and similar habitats. Mostly gregarious, scattering into individuals for feeding. Shy and crepuscular. Feeding habits similar to plovers'. Waits motionless for larger prey, and finding one darts and stabs it; smaller prey picked up by slow walk, pause and peck tactics. Resembles Stone Curlew in general behaviour. Flies with trailing legs like a Bronzewinged Jaçana. **Food**: Mainly crabs. Observed to pirate food from members of its own species and others. **Call**: Said to utter a shrill *tchuk-tchuk-tchuk*. **Nesting**: Extralimital. Suspected to breed in some years, but scarcely, in Sri Lanka in May.

196. **Stone Curlew** *Burhinus oedicnemus* (Linnaeus)

ACN: Eurasian Thick-Knee

Plate 22

Syn. No. 436

Local names: *Karwanak, Barsiri* (Hindi); *Lambi* (falconers); *Kharma, Chhota shilabatan* (Bengal); *Kolleydu* (Telugu); *Kanal mosal* (= jungle hare), *Kannadi al katti* (Tamil); *Vayalkannan* (Malayalam); *Golu kiraluwa, Golu kirala* (Sinhala); *Musal kinandi* (Tamil, Sri Lanka).

Size: Partridge+; more leggy. **Field Characters**: A brown-streaked plover-like ground bird with thick head, long bare yellow 'thick-kneed' legs, and large yellow 'goggle' eyes. In flight two narrow white bars on the dark wings conspicuous. Sexes alike. Pairs, or parties, in open stony country. **Distribution**: Practically throughout the Indian Union up to about 1000 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. The race *indicus* concerns us mainly. **Habits**: Affects dry plains country with scanty scrub, ploughed and fallow land, shingly stream beds and ravines, light deciduous jungle and mango topes, etc., near villages. Largely crepuscular and nocturnal, and sluggish during daytime. When suspicious or alarmed, squats with body pressed to ground and neck extended, when its coloration affords perfect camouflage. **Food**: Insects, worms, small reptiles, etc., to which a quantity of grit is added. **Call**: A series of sharp clear whistling 'scream' *pick, pick, pick, pick ..... pick-wick, pick-wick, pick-wick*, etc. (accent on second syllable). Mostly heard at dusk and during moonlit nights. **Nesting**: *Season* — February to August. *Eggs* — 2, pale buff to olive-green, boldly blotched with brownish or purplish; remarkably obliterative. Laid on ground in a scrape in dry river bed, open country or mango grove. Both sexes share parental duties.

197. **Great Stone Plover** *Esacus magnirostris* (Vieillot)

NN: Great Thick-Knee *Burhinus recurvirostris* (Cuvier)

Plate 22

Syn. No. 437

Local names: *Bada karwanak* (Hindi); *Abi* (falconers); *Ganga titai* = Ganges lapwing, *Bada shilabatan* (Bengal); *Baligura* (Miris of plains, Assam).

Size: Domestic hen. **Field Characters**: An enlarged edition of Stone Curlew; greyish sandy above, white below. Stout black-and-yellow upturned bill, and enormous yellow 'goggle' eyes. In flight the peculiar arched profile of the back, and round white wing-patch diagnostic. Sexes alike. **Distribution**: Mainly resident with some local movements. all India, Andaman and Nicobars; Nepal; Pakistan; Bangladesh; Sri Lanka. Rocky river-beds and their dry environs, sometimes sea beaches, tidal estuaries and salt pans. **Habits**: As of Stone Curlew. Largely crepuscular and nocturnal. Pairs or small parties of 4 or 5; sometimes small flocks. A fast runner; also swims on occasion, riding water high like a duck. **Food**: Mainly crabs from under stones prised up with the specially adapted bill. Also other small animals found in its habitat. **Call**: Quite unlike Stone Curlew's: a single harsh creaking note. **Nesting**: *Season* — February to June/July. *Nest* — a shallow scrape in an exposed sandy river-bed; sometimes even lays on bare sheet rock. *Eggs* — very cryptically coloured like Stone Curlew's, pale buff to olive-green, blotched with brownish or purplish. Both sexes incubate and tend the young.

198. **Indian Courser** *Cursorius coromandelicus* (Gmelin)

Plate 23

Syn. No. 440

Local names: *Nukri* (Hindi); *Thonth* (Mirshikars, Bihar); *Yarra chitawa* (Telugu); *Weli kirala* (Sinhala); *Allkatti* (Tamil, Sri Lanka); *Veli alappan* (Malayalam).

Size: Partridge±. **Field Characters**: A sandy brown lapwing-like bird with chestnut and black underparts. Rich rufous crown; a black and a white stripe through and above eyes; long bare china white legs. Sexes alike. A good example of obliterative coloration. Scattered pairs, or parties, on fallow land and semi-desert. **Distribution**: The drier portions of the Indian Union (excepting NE.); Pakistan; Bangladesh; northern Sri Lanka. Resident and locally migratory. Largely replaced in Pakistan by the Palaearctic cream coloured species, *C. cursor*, without chestnut and black underparts. **Habits**: Bare stony plains, waste and fallow land adjoining cultivation, and ploughed fields is the Courser's typical habitat. Runs about swiftly, zigzagging and dipping forward obliquely now and again in the characteristic plover manner to pick up some insects. On alarm or suspicion spurts forward a few yards with rapid mincing steps, halts abruptly and stretches itself erect to survey the intruder, makes another spurt, and so on. When pressed, rises with a peculiar note, flying fairly low over the ground and commencing to run immediately upon touching down a hundred metres or so farther. **Food**: Beetles and their larvae, crickets, grasshoppers and other insects. **Nesting**: *Season* — chiefly March to August. *Eggs* — 2 or 3, stone-coloured, thickly spotted and blotched with black. Laid in a shallow scrape or on bare ground in open, arid country, where they are perfectly camouflaged.

199. **Jerdon's** or **Doublebanded Courser**

Cursorius bitorquatus (Blyth)

Plate 23

Syn. No. 441

Local names: *Adavi-wuta-titti* - 'Jungle-empty-purse' (Telugu) recorded by Jerdon, enigmatical and not locally current or understood!

Size: Partridge±. **Field Characters**: An unmistakable first cousin of the Indian Courser. Upper parts pinkish sandy brown. Crown and hindneck dark brown with broad whitish supercilium from lores to nape. Chin and throat whitish. Foreneck rufous, separated from brown breast by a white band. A second white band across lower breast. Rest of underparts whitish. Tail white and black. A white wing-bar prominent in flight. Sexes alike. **Distribution**: Indigenous to peninsular India though its nearest relations are African. Only known from the Godavari Valley in Andhra — Nellore, Cuddapah, Sironcha, Bhadrachalam, and Anantpur neighbourhoods. First discovered in 1848; last authentic record in 1900. After careful search rediscovered on 12 January, 1986 at Lankamalai Sanctuary, Cuddapah Dist., Andhra Pradesh. **Habits**: Apparently not very different from those of the common Indian Courser except that it is found in broken forested and scrub country instead of open wasteland; in pairs. **Nesting**: *Season* — Not known. *Eggs* — very similar in coloration and markings to the Indian Courser's, are anonymously claimed to have been taken once on bare ground in thin scrub jungle. That was in 1895 since when further information is lacking.

200. **Large Indian Pratincole** or **Collared Swallow Plover**

Glareola pratincola (Linnaeus)

Plate 23

Syn. No. 443

Size: Myna±; slimmer. **Field Characters**: Short-legged tern-like plover with long, narrow, pointed wings extending to tip of deeply forked tail when closed. Olive brown above. Lores black, continued as a black band round rufous throat bounded by the black band. The brown breast passes on to rufous and then to white on abdomen. Narrow pointed wings, chestnut underwing lining and black wing quills distinctive in flight. Sexes alike. **Distribution**: Resident. Nomadic. Throughout India; also Pakistan; Bangladesh and Sri Lanka. **Habits**: Seen on dried up flood plains, tidal mudflats, marshes, harvested coastal fields, etc. Gregarious and crepuscular. Sometimes seen in large flocks. Hunts in the mornings and evenings high up in the sky like swallows, hawking insects. Occasionally at lower heights, even skimming over cultivated fields. Sometimes feeds on the ground. **Food**: Flying insects. **Call**: A distinctive *kirri, kirri* in flight. **Nesting**: *Season* — March to May. *Nest* — a shallow scrape in hard sunbaked land, sometimes in hoof prints. Nests gregariously. *Eggs* — 2 or 3, pale yellowish stone to yellow buff, densely spotted blotched with black. Both sexes share parental duties.

201. **Small Pratincole** or **Swallow-Plover**
Glareola lactea Temminck

Plate 23

Syn. No. 444

Local names: *Utteran* (Sind); *Chhota babuibatan* (Bengal).

Size: Sparrow+. **Field Characters**: A sandy grey riverside bird with pointed swallow-like wings and squarish (slightly forked) tail. Underparts rufous-tinged sooty brown, belly white. A black band from eye to bill. When flying overhead the whitish underparts, black wing-lining, and short black-tipped white tail are leading pointers. Gregarious habit and fluttering pipistrelle-like flight further help identification. Sexes alike. Small flocks or large loose concentrations on broad rivers and streams with dry shingle beds; also at large jheels and coastal swamps, e.g. the Sunderbans. **Distribution**: Resident, nomadic, and local migrant. Practically all India; Nepal; Pakistan; Bangladesh and Sri Lanka. Occasionally up to *c.* 1800 m on Himalayan rivers. **Habits**: Rather crepuscular, often hunting till well after dusk. Scattered flocks hawk insects high up in the air or close to the surface, zigzagging at great speed with abrupt turns and twists. In failing light easily mistakable for small insectivorous bats. On ground runs about in short spurts, stopping abruptly to pick up a morsel in typical plover style. **Food**: Insects. **Call**: A gecko-like *tuck-tuck-tuck*; a soft *tiririt, tiririt, tiririt,* etc. when a flock is disturbed and flying about agitatedly. **Nesting**: Colonial. *Season* — February to April. *Nest* — a shallow scrape in a dry sandy riverbed. *Eggs* — 2 or 3, pale sandy grey spotted and blotched with some shade of brown, admirably camouflaged. Both sexes incubate and tend the young.

202. **Herring Gull** *Larus argentatus* Pontoppidan
NN: Yellowlegged Gull *Larus cachinnans* Pallas

Plate 27

Syn. No. 450

Size: Domestic duck±; length 60 cm. **Field Characters**: A large gull with yellow legs and feet and a bright red patch near tip of lower mandible. A white mirror on the chiefly black wing quills. In winter head and hindneck streaked with brown. Otherwise white with grey mantle. **Distribution**: Winter visitor to the sea coast and harbours of western India and the Peninsula. **Habits**: Gregarious. A scavenger at seaports and fishing harbours. **Food:** Fish offal and other refuse; molluscs, crabs, etc., young and eggs of colonial nesting sea birds and by piracy. **Call**: A raucous creaking *kee-ow kee-ow* resembling the call of the fishing eagle. **Nesting**: Extralimital, circumpolar.

203. **Lesser Blackbacked Gull** *Larus fuscus* Linnaeus

Plate 27

Syn. No. 452

Size: Domestic duck±. **Field Characters**: Head, neck, underparts and tail pure white; mantle blackish slaty grey. Legs yellow or orangy yellow. In flight narrow white trailing edges of the wings and white tips of the black primaries conspicuous. Sexes alike. In winter head densely streaked brown. **Distribution**: Winter visitor to the western seaboard, also Coromandel Coast. Likely to be confused with Herring Gull. Inland records (either passage or wintering) from Delhi, Madhya Pradesh; Nepal; Sri Lanka. **Habits**: Gregarious, a scavenger like other gulls. **Food**: Dead fish, offal, etc. **Call**: *kee-ow, kee-ow* rarely heard in winter. **Nesting**: Extralimital.

204. **Great Blackheaded Gull** *Larus ichthyaetus* Pallas

Plate 27

Syn. No. 452

Local names: *Dhomra* (Hindi); *Kheir* (Mirshikars, Bihar).

Size: Domestic duck±. **Field Characters**: Largest among the gulls, usually solitary. Bill yellow with a bright red patch at angle. In winter, head white with brown streaks, turns black by February. Mantle grey, body white. Primaries white with subterminal black bands and white tips. Immature birds mottled pale brown with almost white head. Tail with broad terminal blackish band. **Distribution**: Winter visitor to the coasts and larger rivers of the subcontinent; also Sri Lanka; Nepal terai. Occasionally inland rivers and lakes - Kutch, Rajasthan. **Habits**: Usually solitary. Occasionaily in small flocks. More a bird of the open seas than other gulls. **Food**: Fish and crustaceans. Also indulges in piracy. **Call**: A loud raucous *kraa-a* like that of a raven's, rarely heard in its winter quarters. **Nesting**: Extralimital

205. **Brownheaded Gull** *Larus brunnicephalus* Jerdon

Plate 27

Syn. No. 454

Local names: *Dhomra* (Hindi); *Kadalpatta* (Malayalam); *Kadal kakkai* (Tamil); *Muhudu kaputa* (Sinhala).

Size: Jungle Crow+. **Field Characters**: A typical gull, grey above, white below with coffee-brown head in summer. In winter, while birds mostly with us, head greyish white. Distinguishable from the equally common somewhat smaller Blackheaded Gull (*L. ridibundus*) (No.206) by the prominent white patch or 'mirror' near tip of the all-black first primary. In *ridibundus* first primary all white, with black edges and tip. First year birds (both species) have a black subterminal bar to white tail. Gregariously, on the seacoast; sparingly on large rivers and jheels. **Distribution**: The western and eastern seaboards of India, and to a lesser extent also on inland waters; Bangladesh; Pakistan; Sri Lanka; Myanmar. Winter visitor. **Habits**: Arrives about September/October, departs end April. Frequents harbours and coastal fishing villages, circling in effortless gliding flight round ships lying at anchor or escorting outgoing and incoming vessels and fishing boats for scraps or garbage cast overboard. These are either scooped off the surface in flight, or by the bird alighting on the water beside them with other gull species and with Pariah and Brahminy Kites. In inland localities it also eats insects, grubs, slugs and shoots of various crops. **Call**: A variety of loud raucous notes, one commonly heard being a querulous scream *keeah* rather like the raven's. **Nesting**: Breeds in colonies in Ladakh and Tibet, in bogs around Rhamtso, Manasarovar, Rakhas Tal and other lakes, June/July.

206. **Blackheaded Gull** *Larus ridibundus* Linnaeus

Plate 27

Syn. No. 455

Size: House Crow±. **Field Characters**: Very similar to Brownheaded Gull but easily separated by the slightly smaller size and the leading edge of the wing being pure white with no white 'mirror' near tip of primaries. The dark coffee coloured head is assumed by end March prior to migration. Sexes alike. **Distribution**: Winter visitor to the Indian seaboard and lakes in India. Pakistan; Bangladesh; Nepal; Sri Lanka. **Habits**: Affects sea coast, estuaries, harbours, etc. Gregarious and a scavenger like the brownheaded gull. **Call**: A loud scream *ree-ah* or a loud *ka-yek, ka-yek*. **Nesting**: Extralimital.

207. **Indian Whiskered Tern** *Chlidonias hybrida* (Pallas)

Plate 28

Syn. No. 458

Local names: *Tehari, Ganga cheel, Machh louka, Koorari* (Hindi); *Krind, Kreu* (Kashmir); *Muhudu lihiniya* (Sinhala); *Kadal kuruvi* (Tamil, Sri Lanka); *Ramadasu, Samudrapu kaki* (Telugu); *Kivi* (Gond); *Kadalkakka* (Malayalam).

Size: Pigeon±; considerably slimmer. **Field Characters**: In winter plumage rather like the river tern, grey above white below. Distinguishable by its much shorter and only slightly forked (almost square-cut) tail, a characteristic of this group known as 'marsh terns', also by red instead of yellow bill. At rest, tips of closed wings project beyond tail. In summer dress, black cap and black belly conspicuous. Sexes alike. Numbers at jheels, inundated paddy fields, etc. **Distribution**: Our race *indicus* is found breeding in Kashmir, in the Gangetic plain, Assam and Bangladesh. It winters throughout the subcontinent in Pakistan, E. Nepal and Sri Lanka. **Habits**: Affects jheels and marshes inland, and tidal creeks and mudflats on the seaboard. Flies gracefully back and forth over a marsh, bill and eye directed intently below for signs of life. Plunges into water after fish or stoops on insects or crabs on the ground and bears them away in its stride. Although possessing webbed feet, terns hardly even alight on the water. When not hunting they rest on a rock or mudbank on their ridiculously short legs. **Food**: Tiny fishes, tadpoles, crabs, grasshoppers and other insects. **Nesting**: *Season* — in N. India and Kashmir, June to September. *Nest* — a rough circular pad of reeds and rushes on tangles of floating singara (*Trappa* sp.) and other aquatic vegetation in jheels and swamps, usually in colonies. *Eggs* — 2 or 3, greenish, brownish, or bluish, spotted and streaked with dark or purplish brown. Both sexes share the domestic duties.

208. **Gullbilled Tern** *Gelochelidon nilotica* (Gmelin)

NN: *Sterna nilotica* Gmelin

Plate 28

Syn. No. 460

Local Names: As under Sl. 207; *Kirru Dooni amma* (Maldives)

Size: House Crow-. **Field Characters**: A common, grey and white tern with deep forked white tail and stout gull-like *black* bill. Its black bill and black legs distinguish it from all other terns. Head white, streaked with black and a black patch round eye and above ear-coverts in winter. In summer head and up to nape jet black. Sexes alike. **Distribution**: In winter throughout the subcontinent, Andamans, Nepal and Sri Lanka. Breeds in Pakistan, W. Bengal and Bangladesh. Two races. **Habits**: Gregarious but usually seen singly or in small flocks, quartering the mudflats to scoop up titbits. Affects coastal mudflats, creeks, etc., and large jheels and rivers inland. **Food**: Crabs, prawns, insects, etc. **Call**: A scolding high-pitched *hik hik hik* .... **Nesting**: *Season* — April to June. *Nest* — a slight depression in the sand lined with debris. Nests in mixed colonies. *Eggs* — 2 or 3, pale yellow or greenish stone blotched with purple, red, blackish brown. Both sexes share parental duties.

209. **Caspian Tern** *Hydroprogne caspia* (Pallas)

NN: *Sterna caspia* Pallas

Plate 28

Syn. No. 463

Local names: *Kekra* (Sind); *Mamuhudu lihiniya* (Sinhala); *Periya kadal kurivi* (Tamil, Sri Lanka).

Size: Jungle Crow+. **Field Characters**: Our largest tern, recognized also by its very large, stout coral-red bill, and black legs and feet. In winter plumage head largely white, streaked on crown with black. Sexes alike. **Distribution**: Chiefly winter visitor, but breeds sparingly also in Pakistan and Sri Lanka. Affects sea coast, estuaries and large lakes, e.g. Chilka. **Habits**: Not very different from other terns. Usually seen in twos and threes in company with other species. Sometimes alights on water like a gull, but normally rests on ground. **Food**: Fish, prawns, swimming crabs, etc. captured by plunging from air. **Call**: A loud, raucous *krake-kra*. **Nesting**: Colonial, in Baluchistan (Sirandah lake) and on islands off Makran coast and sandbanks off Mannar (Sri Lanka), along with other terns. *Season* — May-June. *Nest* — a shallow scrape in sand without any lining or with blackened bits of leaves. *Eggs* — 2 or 3, very variable, pale yellowish to dark greyish stone colour, blotched with blackish and grey. Both sexes incubate; period *c*. 20-22 days.

210. **River Tern** *Sterna aurantia* J.E. Gray

Plate 28

Syn. No. 463

Local names: In general as under No.206. *Kinai* (Sind).

Size: Pigeon±; much slimmer. **Field Characters**: A slender, graceful, grey and white tern with long, deeply forked 'shallow' tail; deep yellow bill and short red legs. In summer entire forehead, crown and nape glossy jet black; in winter greyish white flecked and streaked with black, especially on nape. Sexes alike. Gregariously, on rivers and jheels, flying up and down. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. **Habits**: Flies a few feet above the water with deliberate beats of the long, slender, pointed wings intently scanning the surface for fish venturing within striking depth. From time to time it plunges in with closed wings, often becoming completely submerged but soon reappearing with the quarry held across the bill. As it resumes its flight, the victim is jerked up in the air and swallowed head foremost. In addition to fish, crustaceans, tadpoles and water insects are also eaten. **Nesting**: *Season* — chiefly March to May. *Eggs* — 3, greenish grey to buffy stone blotched and streaked with brown and inky purple. Laid on bare ground on sandbanks of large rivers in colonies.

211. **Common Tern** *Sterna hirundo* Linnaeus

Plate 28

Syn. No. 464

Local names: *Irrachchal* (Sri Lanka).

Size: House Crow-. **Field Characters**: Grey mantled tern with deeply forked white tail not projecting beyond wing tip at rest. Ashy grey above, forehead white, crown streaked with black. White on chin, throat, wing lining and under tail-coverts. Breast and abdomen greyish

white. The largely black first primary and blackish bill with red base are distinctive. **Distribution**: Breeds in Ladakh, and since 1980 noted breeding on a tiny, loose coral island along east coast of Sri Lanka. Winter visitor to the rest of the subcontinent; fairly common in the Gangetic Plain, less so (elsewhere). **Habits**: Affects large rivers, jheels, tidal creeks and estuaries. **Food**: Fish, crustaceans and other invertebrates. **Call**: Besides a piping metallic-sounding *twink*, utters a scolding *crarr*. **Nesting**: *Season* — June-July. *Nest* — colonial, usually a mere scrape on the ground lined with feathers and/or shells, placed between or near relatively large pieces of coral or rock for shelter. *Eggs* — 2 or 3, dull grey-green to stone yellow. Parents vigorously defend nest.

212. **Blackbellied Tern** *Sterna acuticauda* J.E.Gray

Plate 28

Syn. No. 470

Local Names: As under Sl. No. 207

Size: House Crow-. **Field Characters**: A river tern with a deeply forked tail. Ashy grey above black below in summer. Forehead, crown and crest glossy black. Cheeks, chin, throat white. Easily separated from the Whiskered Tern in blackbellied summer plumage by the deeply *forked* tail. In winter, head streaked with black and black patch behind eye. Greyish white below. **Distribution**: Resident. Throughout the subcontinent east of the Indus. Absent in Sri Lanka. **Habits**: Seen on large rivers and jheels in large or small flocks quartering the river a few metres above the surface. Rest in packed flocks on sandbanks all facing into the wind. **Food**: Mainly fish. **Call**: A shrill *krek krek* uttered in flight. **Nesting**: *Season* — March-April. *Nest* — a shallow scrape on a sandspit or islets. Nests in mixed colonies often of considerable size. *Eggs* — 3, rarely 4. Pale or dark sandy speckled with red. Both sexes incubate and share parental duties.

213. **Little Tern** *Sterna albifrons* Pallas

Plate 28

Syn. No. 475

Local Names: None recorded.

Size: Myna±; *c*. 25 cm. **Field Characters**: Separable from all other grey and white terns by the small size. Head black capped in summer, mixed with white in winter, white forehead. Bill orange yellow in summer blackish in winter. Legs orange yellow in summer, dusky red in winter. Sexes alike. **Distribution**: In winter north India to Assam and to the extreme south of the Peninsula. **Habits**: Singly or in loose flocks in tidal creeks, coastal lagoons and salt pans. Rivers and freshwater jheels inland. Flies back and forth scanning the surface for food occasionally hovers like a kingfisher. **Food**: Small fish, crustaceans, insects. **Call**: A sharp *creek creek*. **Nesting**: The Indian race *pusilla* nests in small colonies on sandbanks in rivers and jheels in Pakistan and on islands off the West coast of India (Vengurla, Uttara Vashi, etc.). *Season* — May and June. *Nest* — a shallow depression in sand or shingle. *Eggs* — 2 or 3, sand coloured tinged yellow, grey or green, spotted or speckled with red. Both sexes incubate.

214. **Large Crested Tern** *Sterna bergii* Lichtenstein

ACN: Great Crested Tern

Plate 28

Syn. No. 478

Local names: *Gardooni* (Maldives); *Muhudu lihiniya* (Sinhala); *Priya kondai kadal kuruvi* (Tamil); *Tharatgassu* (Lakshadweep).

Size: Pariah kite-; *c*. 53 cm. **Field Characters**: A large tern with black crown, prominent black nuchal crest, lemon yellow bill and black legs, lores and a band across forehead white. Neck and underparts white. Mantle grey, tail greyish white, primaries blackish. Sexes alike. In winter head white. Speckled with black. Nuchal crest black. **Distribution**: Breeding resident on islets off the coast of the subcontinent. Indian Union; Pakistan; Bangladesh; Sri Lanka. Nicobars (sight). Post-breeding dispersal along entire seaboard. **Habits**: A sea tern, usually seen in offshore waters often at considerable distance out at sea. Singly or in loose flocks, flying a few metres above the water, scanning with bill down, occasionally hovering before plunging to catch prey. **Food**: Fish and prawns. **Call**: A characteristic *cherrull*. **Nesting**: *Season* — April to June. Colonial. Islands off the coast, Vengurla, Lakshadweep, Rameswaram, Sunderbans. *Nest* — shallow scrapes on bare rocks, sand or coral. *Eggs* — 1 or 2 (rarely 3), round variable in colour white, cream or pink with blackish or brownish markings.

215. **Indian Skimmer** *Rynchops albicollis* Swainson

Plate 27

Syn. No. 484

Local names: *Panchira* (Hindi).

Size: House Crow±. **Field Characters**: A very long and pointed-winged tern-like bird of pied plumage, chiefly blackish brown above, glistening white below, with a peculiar laterally flattened knife-bladelike orange-yellow bill and bright red legs. Sexes alike; female smaller. Seen singly or in small parties flying low over the water surface in rivers. **Distribution**: Fairly common on the larger rivers in northern India — Indus, Ganges, Brahmaputra systems, etc. — south to about the Krishna; Nepal terai. Vagrant to Kutch, Jodhpur, Mt. Abu, Bombay. Bangladesh; Pakistan. **Habits**: Rather tern-like. Hunts actively up and down the river in daytime as well as during moonlit nights. Skims with quivering wing-tips over placid water with tip of lower mandible immersed at an angle lightly ploughing the surface, the short upper mandible raised open in readiness to snap on any fish touching the edge and hold it in a vice-like grip. The quarry is jerked into position and swallowed head foremost. **Food**: Mainly fish. **Call**: Described as a shrill, chattering scream; also as a nasal *kap, kap*. **Nesting**: *Season* — chiefly February to April. *Nest* — an unlined depression in the sand in a dry river bed or sandy islet amid stream. *Eggs* — 3 or 4, pale pinky buff to pale salmon colour or greyish white, blotched and streaked with brown. Incubation apparently by female alone. When first hatched, bill of downy chick of normal shape like young tern's, and horn-coloured.

216. **Indian Sandgrouse** *Pterocles exustus* Temminck

ACN: Chestnutbellied Sandgrouse

Plate 29

Syn. No. 487

Local names: *Bhat teetar, Kuhar* (Hindi); *Batebar, Bateban* (Sind); *Pokurdee, Pokundi* (Marathi); *Kal gojal hakki* (Kannada); *Jam polanki* (Telugu); *Kal koudari* (Tamil).

Size: Pigeon-. **Field Characters**: A yellowish sandy brown pin-tailed pigeon-like ground bird with a narrow black band across the breast, and brownish black belly. Cheeks, chin and throat dull yellow. *Female* streaked, spotted and barred with black all over except the chin; also with a black band across breast. When overhead, the dark underside with pointed tail and wings, and swift, direct flight accompanied by the characteristic double note, proclaim its identity. Flocks of up to a dozen or more, on dry fallow land. **Distribution**: Dry areas throughout the Indian Union south to Tamil Nadu except NE. India; Pakistan. Not Bangladesh, Sri Lanka or Myanmar. Only the one race *erlangeri* concerns us. **Habits**: Affects barren plains, stubble fields, and fallow land. Shuffles along the ground on its short legs, gleaning weed- and grass seeds supplemented by grit. Its remarkably obliterative coloration makes the bird completely invisible while it remains squatted still. Flocks and parties regularly travel long distances to drink at favourite spots soon after sunrise and again before sunset, and used to offer good sport for the gun as they fly to or from the water. **Call**: A penetrating far-reaching double note *kut-ro* constantly uttered in flight. **Nesting**: *Season* — undefined; chiefly January to May. *Nest* — a shallow unlined scrape in open stony scrub country. *Eggs* — 3, pale greyish or yellowish stone colour, spotted and speckled with brown. Both sexes share in incubation.

217. **Imperial** or **Blackbellied Sandgrouse** *Pterocles orientalis* (Linnaeus)

Plate 29

Syn. No. 489

Local names: *Banchur, Kurmor* (Peshawar); *Bada bhatta, Siah seena* (Baluchistan); *Katingo, Chur* (Sind).

Size: Pigeon+; length *c.* 39 cm. **Field Characters**: A typical sandgrouse with pointed tail, black breast and abdomen in both sexes. Distinguished in flight from other sandgrouse by the large size, black belly and white underside of wings. Male sandy grey above mottled yellow and olive-black. Throat chestnut above, black below, breast grey with a narrow black pectoral gorget and brownish buff hand. Belly and flanks black. Female: Pinkish grey or pale fawn finely cross barred with black, spotted on head and neck. Below yellowish on chin and throat. Neck ashy. A black pectoral gorget. Underparts black. **Distribution**: Winter visitor to arid areas of NW. India (Punjab, Rajasthan, N. Gujarat, Kutch). Nomadic and erratic, locally in large numbers (Gajner). Vagrant in the Gangetic plains, Nepal, Uttar Pradesh, Madhya Pradesh and Karnataka. Breeds in Pakistan (Baluchistan and Sind). **Habits**: Usually in flocks of up to 30 birds much larger numbers not uncommon. Very wary. Drinks in the morning and evening flights, often in enormous numbers arriving punctually at a water-point, often travel over 20 km to drink. Used to be shot in large numbers at watering points. **Food**: Feeds largely on grass and weed seeds. **Call**: Described as a repeated clucking *catarr* call which carries far. **Nesting**: Chiefly extralimital (Mediterranean Africa, Central Asia). *Season* — in Baluchistan May and June. *Eggs* — 2 or 3, pale buff or greenish-grey with brown smudges and spots. Laid on bare ground or in a shallow scrape.

218. **Painted Sandgrouse** *Pterocles indicus* (Gmelin)

Plate 29

Syn. No. 492

Local names: *Pahari bhat-teetar, Bhat-ban* (Hindi); *Chapka* (Sagar; same as for nightjar with which it is confused); *Gutila teetar* (Mirzapur); *Palki* (Belgaum); *Kal gojal hakki* (Mysore).

Size: Between Myna and Pigeon. **Field Characters**: Smaller than the Common Sandgrouse, with close-barred plumage and no pin feathers in tail. White forecrown cut across by a black band, tri-coloured gorget on breast (chestnut, buff, and black), and close-barred underparts diagnostic of male. *Female* finely barred above and below with chocolate, black, and buff. Pairs or small parties in dry, stony scrub country, and open forest. **Distribution**: Peculiar to India. Resident over the greater part of peninsula and central India and NW. Pakistan; locally migratory in rainy season. Not in NE. Indian states, Bangladesh, or Sri Lanka. **Habits**: Terrestrial; usually pairs, seldom flocks. Walks and runs better than Indian Sandgrouse. Extra-ordinarily well camouflaged when squatted. Rises suddenly when almost trampled on, with a clucking *yek-yek-yek-yek* and noisy clapping of wings. Has swift flapping flight. Partly crepuscular. Large numbers concentrate to drink at a favourite water-hole at dusk, arriving in small parties, and continuing, till almost quite dark. Said to drink in the morning and well before sunrise. When flying to and from water utters a distinctive *chirik-chiril* which in the dark is often the only indication of the traffic. **Food**: Grain, seeds and shoots. **Nesting**: *Season* — Practically throughout the year, chiefly March to June. *Nest* — a scrape on stony ground under protection of a bush or grass clump. *Eggs* — 3, cream to salmon pink, sparsely spotted and blotched with purplish red or reddish grey.

219. **Pintailed Green Pigeon** *Treron apicauda* Blyth

Plate 29

Syn. No. 493

Local names: *Kokla, Kokila* (Hindi); *Haitha, Bor haitha* or *haithak* (Assam); *Kaku, kuhu-pho* (Lepcha); *Daorep gadeba* (Cachar); *Kainal* (Simla).

Size: Pigeon±; *c.* 42 cm (15.5 in.). **Field Characters**: Yellowish green overall with a long pin-pointed tail and two distinct yellow bars on the black wings. A broad olive green collar on hindneck. Breast orange pink, cinnamon under tail with white margin. Female duller. **Distribution**: Resident throughout the lower Himalayas from Kumaon eastwards, usually seen on tall forest trees, up to *c.* 1800 m. **Habits**: As in other green pigeons, arboreal, occasionally on ground at salt licks. Keeps to tall trees clambering around for feeding in flocks of up to 30. Exceedingly well camouflaged. **Food**: Berries and drupes. **Call**: Mellow whistles similar to those of Wedgetailed Green Pigeon. **Nesting**: *Season* — April to June. *Nest* — platform of twigs in a bush or bamboo clump. *Eggs* — 2, white, as of other pigeons. Both sexes incubate.

220. **Kokla** or **Wedgetailed Green Pigeon**

Treron sphenura (Vigors)

Plate 29

Syn. No. 494

Local names: *Kokla, Kokila* (Hindi); *Haitha, Bor haitha* or *haithak* (Assam); *Kaku, Kuhu-pho* (Lepcha); *Daorep gadeba* (Cachar); *Kainal* (Simla).

Size: Pigeon; length 33 cm. **Field Characters**: Generally yellowish green. Tail wedge-shaped. Crown tinged with orange-rufous and with variable amount of maroon on back and scapulars in male but absent in female. Chin and throat yellow, breast orange-pink. **Distribution**: The Himalayan foothills (up to 2500 m) from Kashmir to Arunachal Pradesh. NE. Indian hills south of Brahmaputra. **Habits**: Usually in broad-leaved hill forests in flocks of 6 to 15 birds. Keeps to the canopy. **Food**: Exclusively frugivorous. **Call**: A series of mellow whistles indistinguishable from those of the Pintailed Green Pigeon. Can be easily decoyed by imitation of the call. **Nesting**: *Season* — April to June, sometimes up to August. *Nest* — typical pigeon nest of flimsy twigs high up in a tree. *Eggs* — 2, white. Both sexes incubate.

221. **Greyfronted Green Pigeon** *Treron pompadora* (Gmelin)

Plate 29

Syn. No. 496

Local names: *Poda pachcha pavuramu* (Telugu); *Charavariyan* (Malayalam) (for all green pigeons).

Size: Pigeon-. **Field Characters**: Very like Common Green Pigeon but smaller, and with red legs instead of yellow. Sexes dissimilar; male with prominent chestnut mantle. **Distribution**: Wide: five subspecies within our limits of which the peninsular *affinis* here illustrated and described. Southwestern India from a little north of metropolitan Bombay to Kerala. In lowland forest and well-wooded country, and up to *c.* 1200 m in the Ghats. The endemic subspecies, *pompadora* of Sri Lanka has the forehead yellow. The species also occurs in the Andamans and Nicobars; Nepal; Bangladesh. **Habits**: As of other green pigeons. Small flocks of a dozen or so in fruiting trees such as banyan and peepal, effectively camouflaged among the foliage and gorging themselves, often in company with barbets, mynas and other frugivorous birds. **Food**: Exclusively fruit and berries; wild figs specially favoured. **Call**: Musical mellow whistles up and down the scale, very like those of the Yellowlegged, but somewhat higher in key. **Nesting**: *Season* — December to March. *Nest* — a flimsy platform of twigs in a moderate-sized tree. *Eggs* — 2, white. Both sexes share all domestic chores.

222. **Orangebreasted Green Pigeon** *Treron bicincta* (Jerdon)

Plate 29

Syn. No. 501

Local names: *Harial* (Hindi), *Haitha* (Assam); *Pasapu pachcha pavuramu* (Telugu); *Manjavariyan* (Malayalam).

Size: Pigeon±; length *c.* 29 cm. **Field Characters**: Olive-green with orange breast bounded by a lilac band in the male. Cinnamon under tail-coverts edged with pale yellow on outer

longest feathers. Tail slate-grey with a black subterminal band except on central pair, black below with grey tip. Female with middle tail feathers slaty grey. **Distribution**: Throughout India in wet and evergreen and moist-deciduous biotopes. Up to 1500 m in the lower Himalayas. Bangladesh; Sri Lanka; Pakistan (absent). **Habits**: Gregarious and arboreal. **Food**: Frugivorous. **Call**: A series of mellow modulated whistles. **Nesting**: *Season* — March to September, peak April to June. *Nest* — usual flimsy platform of twigs set in a tree or cane brake, at 2-8 m. *Eggs* — 2, white. Both sexes share parental duties.

223. **Common Green Pigeon** *Treron phoenicoptera* (Latham)

ACN: Yellowfooted Green Pigeon

Plate 29

Syn. No. 504

Local names: General for all green pigeons, *Harial* (Hindi); *Jaitha* or *Bor haitha* (Assam); *Daorep gadeba* (Cachar); *Inruigu* (Naga).

Size: Pigeon. **Field Characters**: A stocky yellow, olive-green and ashy grey pigeon with a lilac patch on shoulders and a conspicuous yellow bar in the blackish wings. Sexes alike. *Yellow* legs (not red) always diagnostic for this species. Flocks, in wooded country. **Distribution**: Practically throughout the Indian Union; Pakistan; Bangladesh; Sri Lanka; Myanmar. Three races on size and details of coloration. **Habits**: Gregarious and arboreal, only rarely descending to the ground. Affects well-wooded country; commonly found in roadside trees, particularly banyan and peepul when in fruit, and also in gardens and groves near towns and villages. Large numbers collect to feed on banyan and peepul figs. They clamber about deftly among the fruit-bearing twigs, often clinging upside down to reach out for a ripe one. Their coloration obliterates them completely in the green foliage so long as they remain still, and the birds have learnt to take the fullest advantage of this. The unsuspected numbers that will tumble out of a banyan and fly away on a shot being fired is often quite bewildering. **Food**: Fruits and berries. **Call**: A pleasant, musical, mellow whistle up and down the scale, with a peculiar human quality. Flight swift, strong and direct, accompanied by a noisy, metallic, flapping sound. **Nesting**: *Season* — mainly March to June. *Nest* — a sketchy twig platform like a dove's concealed in foliage up in a moderate-sized tree. *Eggs* — 2, white, glossy. Both sexes share all the domestic duties.

224. **Green Imperial Pigeon** *Ducula aenea* (Linnaeus)

Plate 29

Syn. No. 507

Local names: *Dunkul* or *Doomkul, Sona kabutar, Bada harial* (Hindi); *Paguma, Porguma* or *Purgoomba* (Assam); *Dukul* (Nepali in Nepal); *Hukas* (Nepali in Bengal duars); *Daohukuruma* (Cachar); *Inruikuru* (Naga).

Size: Crow; length *c.* 43 cm. **Field Characters**: Pinkish grey with bright metallic bronze-green back and tail and chestnut maroon under tail coverts. Sexes alike. **Distribution**: Evergreen and moist deciduous biotopes of eastern Uttar Pradesh Bihar east to NE. India, Orissa and the Eastern Ghats of north Andhra Pradesh. Western Ghats from Kanyakumari north to near Bombay, Andamans and Nicobars; Myanmar; Bangladesh; Sri Lanka. **Habits**: A large arboreal pigeon. Resident and locally abundant. Movements related to ripening of fruits. Usually seen singly or pairs or in small flocks of 5 to 6. Flight swift and powerful.

Has the habit of sunning itself sitting on the leafless top of tall trees in the early morning and before sunset. Descends to the ground to drink and at salt licks for soil pellets. **Food**: Exclusively frugivorous, figs being the staple but other fruits eaten. Gape capacious and capable of swallowing fruit up to 4 cm in diameter. **Call**: Deep resounding, ventriloquistic, *wuck-wuck-woor* or *wuck-woor-woor-woor* ending in sounds like jeering laughter. **Nesting**: *Season* — March to June mainly April and May. *Nest* — usual pigeon's (nest of) skimpy unlined platform of sticks, in forest, usually less than 10 m from the ground. *Eggs* — normally 1, exceptionally 2, white. Both sexes share parental duties.

225. **Maroonbacked Imperial Pigeon** *Ducula badia* (Raffles)

ACN: Mountain Imperial Pigeon

Plate 29

Syn. No. 511

Local names: *Dukur* or *Dukul* (Nepal, Sikkim); *Fomok* (Lepcha); *Lal pagoma* (Assam); *Hukas* (Paharia); *Manti pravu* (Malayalam)

Size: Jungle Crow. **Field Characters**: A large, arboreal, forest pigeon; dull olive-brown or copper-brown above, with greyish head, neck and underparts. Sexes alike. In heavy moist forest. **Distribution**: Disjunct. East Himalayan duars and foothills up to *c*. 2300 m; Kerala. W. Karnataka, W. Tamil Nadu (Nilgiris, Palnis to *c*. 2000 m). 3 subspecies. **Habits**: Pairs or small flocks in tall forest trees, usually hidden in foliage canopy. Seen mostly on the wing. Flight swift, but leisurely-looking, rather crow-like in distance. Has a spectacular switch back aerial courtship display, reminiscent of both Blackbellied Finch-Lark and Roller. **Food**: Exclusively fruit, chiefly banyan and other wild figs, nutmegs, etc. Gullet and gape enormously extensible, capable of swallowing very large drupes. **Call**: A deep, far-carrying, booming *ul-ook...ook*. **Nesting**: *Season* — March to August (north); January to May (south). *Nest* — sketchy platform of twigs in small tree, usually hidden among tangled creepers. *Eggs* — a singleton (rarely 2) white, glossy. Incubation by both sexes. Period undetermined.

226. **Blue Rock Pigeon** *Columba livia* Gmelin

Plate 30

Syn. No. 517

Local names: *Kabutar* (Hindi); *Gola payra* (Bengali); *Katretar, Parawa* (Bihar); *Parva* (Marathi); *Gudi pavrai* (Telugu); *Nono daotu* (Cachar); *Mada pura, Malai pura* (Tamil); *Gal pareyiya* (Sinhala); *Parevun* (Gujarat); *Kutta pravu* (Malayalam).

Size: House Crow-; about 32 cm (13 in.). **Field Characters**: A familiar slaty grey bird with glistening metallic green, purple and magenta sheen on neck and upper breast. Two dark bars on wings, and a band across end of tail. Sexes alike. Flocks and colonies, about cliffs and human inhabitations. **Distribution**: Throughout the Indian Union, locally up to 4,000 m in the HImalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident, but also partial local migrant. Two races concern us, differentiated on size and coloration details. **Habits**: In its perfectly wild state affects open country with cliffs and rocky hills. Mostly seen in a semi-domesticated condition, living as a commensal of man and largely adulterated through interbreeding with fancy artificial strains. This semi-feral stock has become thoroughly inured to the din and bustle of urban life and is now well established in most Indian towns. Grain warehouses, railway stations, and old or disused buildings are their

favourite haunts. Wild birds occupy cliffs, and crumbling battlements of hill forts, etc., and glean in outlying cultivation. **Food**: Cereals, pulses, groundnuts, etc. **Call**: A deep *gootr-goo, gootr-goo*. **Nesting**: *Season* — undefined; practically all year in semi-feral birds. *Nest* — a flimsy collection of a few sticks on a ledge or in a fissure of cliff, or on rafters and ceilings of dwelling houses, deserted or occupied. *Eggs* — 2, white, elliptical. Both sexes share all the domestic duties.

227. **Nilgiri Wood Pigeon** *Columba elphinstonii* (Sykes)

Plate 30

Syn. No. 521

Local names: *Marapravu* (Malayalam).

Size: Pigeon±. **Field Characters**: A large reddish brown forest pigeon with grey head and prominent black-and-white 'chessboard' on hindneck. Sexes alike. **Distribution**: Resident, but wandering a great deal with fruiting seasons of forest trees. The Sahyadri or Western Ghats complex from Kerala to a little north of Bombay, including the Anaimalai, Nilgiri, Palni and western Karnataka hills, up to *c* 2000 m. **Habits**: Affects evergreen and moist-deciduous forest (sholas, etc.), singly or in a small flocks. Chiefly arboreal but commonly forages among the mulch on the forest floor, picking up windfallen fruit and tiny snails, etc. Flies at speed through the jungle, turning and twisting expertly to avoid tree trunks and branches. Settles quietly up in trees hidden among the foliage canopy, and is seldom seen except in dashing flight. **Food**: Drupes and berries, some of inordinately large size. **Call**: A langur-like *who* followed by 3 or 4 quick-repeated deeper *who-who-who*. **Nesting**: *Season* — chiefly April to June. *Nest* — a flimsy stick platform as typical of the pigeons, through which the contents are often visible from below. Placed in a moderate-sized forest tree. *Eggs* — a singleton, pure white.

228. **Purple Wood Pigeon** *Columba punicea* Blyth

ACN: Palecapped Pigeon

Plate 30

Syn. No. 524

Local names: *Lali pagooma* (Assam); *Daohukuruma koro gophu* (Cachari).

Size: Pigeon±; length 36 cm (14 in.). **Field Characters**: Crown and nape greyish white otherwise rich chestnut brown above with dark slaty rump and black tail. Chestnut below, entire plumage with glistening metallic green sheen. Female duller. **Distribution**: Bihar south to eastern Madhya Pradesh, Orissa, West Bengal and NE. India; Bangladesh. In forested tracts with well-wooded ravines and dense evergreen undergrowth. From plains level to 1600 m in the hills. Very localised in distribution. **Habits**: Seen singly or in small parties where food is abundant. Difficult to detect as it sits among foliage. **Food**: Figs, fruits and seeds, paddy, etc. **Call**: Said to resemble the booming of the Imperial Pigeon but much more mellow. **Nesting**: *Season* — May to August. *Nest* — usual stick platform of pigeons built at low heights in bush or bamboo clump. *Eggs* — single, pure white.

229. **Bartailed Cuckoo Dove** *Macropygia unchall* (Wagler)

ACN: Barred Cuckoo Dove

Plate 30

Syn. No. 526

Local names: *Tusal* (Nepal); *Phoochong-pho, Ka-er* (Lepcha); *Pumok* (Bhutea); *Daotukunt laima* (Cachari).

Size: Pigeon±; length *c.* 41 cm. (16 in.). **Field Characters**: Slender cuckoo-like longtailed dove. Forehead buffy, lilac purple on crown and hindneck, glossed with metallic green. Upperparts rufous barred with black. Tail long, broad, graduated, barred with brownish black and rufous. Chin and throat lilac-buff, dull lilac on lower breast and buff otherwise. Female duller in colour. **Distribution**: Himalayas from Kashmir to Arunachal Pradesh and south to Meghalaya and Manipur, between 450 and 2700 m in dense evergreen forest and secondary jungle. **Habits**: Seen in pairs and flocks up to 10 or 20. Feeds on the ground in open glades and cultivation. Also in trees-like green pigeons. **Food**: Seeds, grains, drupes and berries. **Call**: A deep *croo-umm* heard over a long distance. Silent except in the breeding season. **Nesting**: *Season* — May to July. *Nest* — the typical flimsy stick platform of doves. *Eggs* — usually single, two not uncommon in NE. Both sexes share parental duties.

230. **Rufous Turtle Dove** *Streptopelia orientalis* (Latham)

ACN: Oriental Turtle Dove

Plate 30

Syn. No. 530

Local names: *Kala fakhta, Barko fakhta* (Hindi); *Wan kukil, Gugi, Fangli konkli, Kamir, Kamru* (Kashmir).

Size: Pigeon; length *c.* 33 cm (13 in.). **Field Characters**: Large reddish brown dove, scaly pattern above and black-and-white 'chessboard' on sides of neck. Tail broad, round with white terminal band conspicuous when alighting. Similar to spotted dove and distinguished from it by rich rufous colour and stocky pigeon-like build. Sexes alike. **Distribution**: Resident in the entire subcontinent in three races up to 4000 m. Pakistan; Nepal; Bangladesh. Their numbers augmented in winter by extralimital migrants. The northern breeding race visits the peninsula in winter; vagrant to Sri Lanka. **Habits**: A ground-feeding, granivorous dove. Seen in pairs and small parties. Flocks when migrating. Flight swift and pigeon-like. **Food**: Paddy, cereals, bamboo and grass seeds. **Call**: A mournful *gur-gur-gurgoo*, repeated in slow runs. Commonly heard in Himalayan hill stations. **Nesting**: *Season* — May to July. *Nest* — a flimsy platform of sticks in fairly open forest. *Eggs* — normally two, white. Both sexes share parental duties.

231. **Ring Dove** *Streptopelia decaocto* (Frivaldszky)

ACN: Eurasian Collared Dove

Plate 30

Syn. No. 534

Local names: *Dhor fakhta, Parki, Panduk, Gugi* (Hindi); *Kukil* (Kashmir); *Gero* (Sind); *Jangli kapoth* (Baluchi); *Daolo, Doula* (Bihar); *Par ghughu* (Bengal); *Pitha hola, Kavda* (Marathi); *Dhol* (Gujarati); *Pedda bella guwa* (Telugu); *Kalli pura, Sambal pura* (Tamil, Sri Lanka); *Pottanchengali* (Malayalam); *Maha kobeyiya* (Sinhala); *Daota gophu* (Cachari); *Set kopu* (Assam).

Size: Pigeon-. **Field Characters**: A pale vinous grey and brown pigeon with a prominent narrow black half-collar or ring on the hindneck. Sexes alike. Pairs or loose flocks, in open scrub and cultivated country. **Distribution**: Throughout the drier portions of the Indian Union, ascending locally and seasonally to 3000 m (10,000 ft) in the Himalayas. Bangladesh; Pakistan; Sri Lanka; Myanmar. Only the typical race concerns us in India. **Habits**: Affects open, cultivated though essentially dry country, abounding in groves, e.g. of babool (*Acacia*) or dhak (*Butea*) trees in which to retire during the midday heat. Locally abundant in the neighbourhood of human habitations, and freely enters gardens and bungalow verandas, etc. **Call**: A deep, trisyllabic *kuk-koo-kook*, repeated several times in succession. Has pretty courtship display, rising vertically a few feet on noisily flapping wings and fanned-out tail, and volplaning down in a graceful spiral or arc to the accompaniment of an aggressive-sounding prolonged *koon-koon-koon*. **Nesting**: *Season* — Practically all year. *Nest* — the typical scanty twig platform in a bush or small tree; rarely in a human dwelling. *Eggs* — 2, white. Both sexes share all the domestic duties.

232. **Red Turtle Dove** *Streptopelia tranquebarica* (Hermann)

ACN: Red Collared Dove

Plate 30

Syn. No. 535

Local names: *Lali pohu, Harua kopu* (Assam); *Daotu kashiba gajao* (Cachari); *Gulabi ghughu, Ithuiya ghughu, Tuma khuri, Lal ghughu* (Bengal).

Size: Myna+. **Field Characters**: Female differs from male in having the mantle pale brownish grey instead of bright pinkish brick-red. She looks a smaller edition of the Ring Dove. Loose parties, gleaning in stubble fields, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Locally migratory in many areas. **Habits**: The least common of the doves dealt with here. Affects open cultivated country, usually single or in pairs but sometimes large flocks in association with other doves. Gleans grain and seeds on the ground. **Call**: A rather harsh rolling *groo-gurr-goo, groo-gurr-goo* repeated several times quickly. **Nesting**: *Season* — undefined; practically throughout the year. *Nest* — a sparse, flimsy platform of twigs, sometimes lined with wisps of grass, near the end of a branch 3 to 7 m up. *Eggs* — 2, white. Both sexes share in building the nest.

233. **Spotted Dove** *Streptopelia chinensis* (Scopoli)

Plate 30

Syn. No. 537

Local names: *Chitroka fakhta, Chitta fakhta, Parki, Chitta, Kangskiri, Panduk* (Hindi); *Chhite ghughu, Telia ghughu* (Bengal); *Thipkya kavda* (Marathi); *Chakkara kutta pravu, Aripravu* (Malayalam); *Vana holi* (Gujarati); *Bode* (Gond); *Poda bellaguvva* (Telugu); *Pulli pura* (Tamil); *Pati kopu* (Assam); *Kodaya panduk* (Bihar); *Daotu* (Cachari); *Inruigu* (Naga); *Voh kurup* (Kuki).

Size: Between Myna and Pigeon. **Field Characters**: White-spotted pinkish brown and grey upperparts, and white-and-black 'chessboard' on hindneck are leading clues to its identity. Sexes alike. Pairs or parties, in open wooded country, gleaning in stubble fields, on cross-country cart tracks, etc. **Distribution**: All the Indian Union excepting the arid northwestern parts. Bangladesh; Sri Lanka; Myanmar. The Indian race differs from both the Burmese and the Sri Lankan races in details of size and coloration. **Habits**: Affects open well-wooded and cultivated country; avoids arid tracts. Becomes quite tame and confiding if unmolested, freely entering gardens and verandas of bungalows. Flight as of other doves, swift and strong, attained by vigorous wing strokes. **Call**: An oft-repeated, pleasant though somewhat mournful *kroo-kruk-krukroo.... kroo-kroo-kroo*, the number of final *kroo*s varying from 3 to 6. **Nesting**: *Season* — undefined; practically all year. *Nest* — the customary flimsy dove structure of 'two crossed sticks' low down in a tree or bush; also under eaves and on cornices and beams, etc., in verandas of inhabited bungalows. *Eggs* — 2, white. Both sexes share in all the domestic duties.

234. **Little Brown Dove** *Streptopelia senegalensis* (Linnaeus)

ACN: Laughing Dove

Plate 30

Syn. No. 541

Local names: *Chhota fakhta, Parki, Tortra fakhta, Panduk* (Hindi); *Tutan gheri* (Sind); *Chitti bellaguvva, Sowata guvva* (Telugu); *Touta pura* (Tamil); *Aripravu* (Malayalam); *Ram kopu* (Nowgong, Assam).

Size: Myna+. **Field Characters**: A small, slim dove earthy brown and grey above, pinkish brown and white below with a miniature 'chessboard' in rufous and black on either side of neck. Sexes alike. Pairs or loose flocks in dry scrub or semi-desert country. **Distribution**: The drier portions of practically the entire Gangetic Plain and peninsular India east to about Bangladesh and Tripura; Pakistan. Not Sri Lanka. Only the one race *cambayensis* concerns us. **Habits**: Affects dry stony scrub country with 'cactus' (*Euphorbia* and *Opuntia*) brakes, etc., in the neighbourhood of villages and cultivation, often side by side with Ring Dove. Tame and confiding. Freely enters bungalows and nests on rafters and cornices. **Food**: Seeds and grain gleaned on the ground. **Call**: A soft *coo-rooroo-rooroo*. The male has peculiar courtship display on the ground, bobbing and calling at the female and advancing on her in ludicrous stiff hops, the whole performance reminiscent of a *Calotes* or Bloodsucker lizard. It also has the aerial display described under Ring Dove. **Nesting**: *Season* — practically throughout the year. *Nest* — the usual ridiculously flimsy twig platform in a *Euphorbia* clump; frequently also on rafters, etc. in inhabited dwellings. *Eggs* — 2, white, elliptical.

235. **Emerald** or **Bronzewinged Dove**

Chalcophaps indica (Linnaeus)

Plate 30

Syn. No. 542

Local names: *Raj ghughu* (Bengal); *Pachu kavda* (Marathi); *Andi bellaguvva* (Telugu); *Padaki pura* (Tamil); *Omana pravu, Manika pravu* (Malayalam); *Ka-er* (Lepcha); *Mati kupohu* (Assam); *Sil kopu* (Nowgong, Assam); *Daotualai* (Cachar).

Size: Myna+. **Field Characters**: A brownish pink dove, with glistening emerald bronze-green upperparts (excluding tail) and conspicuous white forehead and eyebrows. In flight, chestnut underside of wings diagnostic. Sexes alike. Singly or pairs, in forest. **Distribution**: The entire Western Ghats country including the Nilgiris and associated hills; the sub-Himalayas from Dehra Dun to NE. India; Eastern Ghats; eastern Madhya Pradesh; Andamans; Nicobars; Bangladesh; Sri Lanka; Myanmar. The Sri Lankan race *robinsoni* differs from the Indian (*indica*) in details of size and coloration. **Habits**: Affects bamboo jungle, and deciduous as well as evergreen forest. Partial to tangles of castor plants growing up on the site of abandoned forest clearings. Feeds on ground along dusty forest roads, etc. Flight swift, strong and direct. Often seen flying across glades at top speed. **Food**: Seeds and berries gleaned on the ground. **Call**: A soft, deep and low *hoon* with a nasal ending. **Nesting**: *Season* — January to May, varying locally. *Nest* — a flimsy twig platform, typical of the doves, perhaps slightly more compact, up in a low tree or bamboo culm. *Eggs* —2, creamy yellow to 'white coffee' colour.

236. **Alexandrine** or **Large Indian Parakeet**

Psittacula eupatria (Linnaeus)

Plate 31

Syn. No. 545

Local names: *Rai-tota, Hiraman-tota* (Hindi); *Pahari tota* (U.P., Lucknow); *Karan tota* (M.P., Saugor); *Takru* (= 'of the hills'. Sukkur, Sind); *Chandana* (Bengal); *Karan suga, Kararia* (Nepal); *Ne tsu* (Lepcha); *Suva* or *Swa* (Orissa).

Size: Pigeon±; slender, with long pointed tail. **Field Characters**: A large grass-green parakeet with the typical short, massive deeply hooked red bill, and a conspicuous maroon patch on each shoulder. The female lacks the rose-pink and black collar of the male. Noisy parties in cultivation, and wooded country. **Distribution**: Practically the entire Indian Union; Bangladesh; Sri Lanka; Myanmar. In Pakistan apparently only in the environs of Karachi, presumably the descendants of escaped cage birds. Four races, on differences in details of size and coloration. **Habits**: Affects wooded country, orchards, and cultivation. Occasionally collects in large flocks which do considerable damage to ripening fruit and standing crops of maize and jowar. Has communal roosts amongst groves of leafy trees where enormous numbers collect each night to the accompaniment of much noise and chatter. Voice deeper and more powerful than that of the commoner Roseringed species. Flight graceful and swift in spite of the seemingly leisurely wing beats. A popular cage bird, and learns to repeat a few words rather indistinctly as compared with the Hill Myna. **Nesting**: *Season* — chiefly December to April, varying locally. *Nest* — an unlined hollow in a tree-trunk excavated or appropriated by the birds, at moderate heights and up to 30 m up. Occasionally natural tree hollows or holes in walls of buildings are used. *Eggs* — 2 to 4, white, blunt ovals. Both sexes share all domestic duties.

237. **Roseringed Parakeet** *Psittacula krameri* (Scopoli)

Plate 31

Syn. No. 550

Local names: *Tota, Lybar tota* (Hindi); *Swa, Suva* (E. Madhya Pradesh); *Popat, Sudo* (Gujarat); *Popat, Keera* (Marathi); *Chiluka* (Telugu); *Kili* (Tamil); *Ranna girawa* (Sinhala); *Tatta, Modirattatta* (Malayalam).

Size: Myna+; with a long pointed tail. **Field Characters**: A smaller edition of the Alexandrine Parakeet, but lacking the maroon shoulder-patches. Female lacks the black and rose-pink collar of male. Noisy flocks about cultivation, in lightly-wooded country. **Distribution**: Practically the entire Indian Union, from the Himalayan foothills south. Plains and locally up to 2000 m in the peninsular hills. Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits**: One of the most familiar of Indian birds, as much at home on the countryside as within villages and towns. Often bands itself into large flocks and is highly destructive at all times to crops and orchard fruit, gnawing and wasting far more than it actually eats. **Call**: A loud, sharp screaming *keeak, keeak, keeak*, etc., uttered both at rest and on the wing. Flight swift and direct, with rapid wing beats. Is a popular cage bird, large numbers of young taken from nest being on sale in all bird markets. Learns loading and firing of a toy cannon. **Nesting**: *Season* — chiefly February to April, varying locally. *Nest* — a natural hollow in a tree-trunk, or one excavated by the birds themselves. Holes in rock scraps and walls of buildings, ruined or in occupation, often within noisy towns, are freely utilized. *Eggs* — 4 to 6, pure white, roundish ovals. Both sexes share all domestic duties.

238. **Indian Redbreasted Parakeet** *Psittacula alexandri* (Linnaeus)

Plate 31

Syn. No. 551

Local names: *Madna, Kajila, Gour toota* (Hindi); *Imrit bhela* (Nepal); *Daobator gajao* (Cachari).

Size: Pigeon-; length *c.* 38 cm (15 in.). **Field Characters**: Grass green parakeet with greyish pink head, plum-red throat and breast and conspicuous yellow shoulder patch. Black forehead and black stripes from lower beak to sides of head. Belly bluish green, vent and tail-coverts. Tail long and pointed bluish green above with yellow tips, dusky yellow below. Bill red in male, black in female and immature birds which are also green in colour throughout. **Distribution**: Moist-deciduous forests at the foot of the Himalayas from Kumaon east to Arunachal, south to the NE. hill states, Andamans; Bangladesh. **Habits**: Seen in small parties of 6 to 10. In larger flocks when raiding paddy fields or orchards. Descends to the ground in harvested fields to glean fallen grain. Fruiting trees are visited day after day. The birds feed quietly among the foliage. **Food**: Wild figs, fruits wild and cultivated. Leaf buds. Fleshy petals and nectar of *Salmalia, Butea*, paddy and other grains. **Call**: A sharp nasal scream *Kaini*, strikingly different from that of Roseringed or Alexandrine parakeets. Uttered by several birds together when a flock is disturbed. **Nesting**: *Season* — January to April. *Nest* — a natural tree hole in well-wooded country often close to cultivation and houses. Several birds may nest in adjoining trees. *Eggs* — 3 to 4, white. Both sexes share parental duties.

239. **Blossomheaded Parakeet** *Psittacula cyanocephala* (Linnaeus)

ACN: Plumheaded Parakeet

Plate 31

Syn. No. 557

Local names: *Tuiya tota* (Hindi); *Keera* (Marathi); *Tui* (Gujarati); *Rama chiluka* (Telugu); *Pannu giriwa* (Sinhala); *Kili* (Tamil); *Poon totta* (Malayalam).

Size: Myna; slenderer and with long, pointed tail. **Field Characters**: Distinguished from Roseringed Parakeet by smaller size, bluish red head and maroon shoulder-patches. In female, head greyer with a bright yellow collar round neck, and no maroon shoulder-patches. White tips to the two long central tail feathers diagnostic in flight, as also the sharp, interrogative *tooi?* uttered on the wing. Flocks in wooded country, about forest cultivation. **Distribution**: Throughout the Indian Union from about 2000 m in the Himalayas; Bangladesh; Sri Lanka; Myanmar. In Pakistan only in the Himalayan foothills about Murree. Resident and locally migratory. Two races on details of coloration. **Habits**: Typical of the parakeets. Prefers better-wooded country than Roseringed Parakeets. Flight very swift. Flocks on the wing turn and twist their way through stems of forest trees with astonishing celerity and orderliness, uttering their distinctive shrill *tooi* or *tooi-tooi?* as they dash along. **Nesting**: *Season* — chiefly between January and May. *Nest* — a hole in a tree trunk often excavated by the birds themselves. Sometimes several pairs nest in neighbouring trees in a loose colony. *Eggs* — 4 to 6, pure white, smooth, roundish ovals. Both sexes share all the domestic duties.

240. **Himalayan Slatyheaded Parakeet** *Psittacula himalayana* (Lesson)

Plate 31

Syn. No. 562

Local names: *Tota, Shoga* (Kashmir); *Pahari tuiya* (U.P.); *Madana suga* (Nepal); *Gagi, Pahari tota, Pahari madna* (Calcutta bird dealers).

Size: Myna+, a long, pointed tail. Length *c.* 41 cm (16 in.). **Field Characters**: A grass-green parakeet with entire head dark bluish slaty. A narrow black ring around neck followed by a dark green collar, prominent red shoulder patch in male, absent in female. Tail steeply graduated and feathers tipped with bright pale yellow particularly the narrow pointed blue middle pair. Immature birds green over all. **Distribution**: Resident in Himalayan foot-hills (600 to 2500 m) from Pakistan to Arunachal Pradesh in well-wooded hillsides and valleys. **Habits**: Nuts, acorn, seeds and fruits. Very destructive in hill orchards and upland maize fields. **Call:** A high-pitched double scream *tooi-tooi* uttered in flight, resembling a marmot's "whistles". A single high-pitched call commonly uttered while at rest. **Nesting**: *Season* — March to May. *Nest* — a natural tree hollow or an enlarged old barbet or woodpecker nest. *Eggs* — 3 to 5, commonly 4. Hen incubates and feeds young, usually by regurgitation.

241. **Bluewinged Parakeet** *Psittacula columboides* (Vigors)

ACN: Malabar Parakeet

Plate 31

Syn. No. 564

Local names: *Madangour tota* (Hindi; of bird dealers?); *Nilattatta* (Malayalam).

Size: Myna±; with long pointed tail. **Field Characters**: Similar to Blossomheaded Parakeet, but greyish green rather than yellowish green, with a brilliant blue-green and black collar. Conspicuous blue wings and tail, the latter with yellow (*v.* white) tips. No maroon red shoulder patch. *Female* lacks verditer collar behind black neck-ring. **Distribution**: The Sahyadri (W. Ghats) complex, including Nilgiri, Palni and associated hills, from a little south of Bombay to Kanyakumari Dt. chiefly between *c.* 500 and 1500 m. Not Sri Lanka. Ever-green and moist-deciduous biotope — foothills woodland, and around hillmen's cultivation. **Habits**: Keeps in noisy parties of 4 or 5 or small flocks. Abandoned forest clearings with relict trees and secondary jungle are among its favourite haunts. Flight and general ecology as of Blossomheaded Parakeet which is addicted to a dry-deciduous forest habitat. **Food**: Grain and fruits, especially wild figs (*Ficus*); also flower-petals and nectar. **Call**: A harsh, distinctive double-noted cry *che-che*, rather reminiscent of Paradise Flycatcher's but much louder and shriller; uttered chiefly on the wing. **Nesting**: *Season* — January to March. *Nest* — a woodpecker- or barbet-hole in a tree trunk in forest, 6 to 30 m up. *Eggs* — normally 4, white, spherical.

242. **Lorikeet** *Loriculus vernalis* (Sparrman)

ACN: Vernal Hanging Parakeet

Plate 31

Syn. No. 566

Local names: *Latkan, Bhora* (Hindi, Bengali); *Daobator lai* (Cachar); *Tattachinnan* (Malayalam); *Cheey* (Marathi).

Size: House Sparrow±. **Field Characters**: A dainty little bright grass-green parrot with short square tail and rich crimson rump. A small blue throat-patch in male; lacking in female. Singly, or small parties, in orchards and well-wooded country. **Distribution**: Eastern Himalayas from Sikkim, through Arunachal and NE. hill states. Western India from about Bombay to Kanyakumari, including the Nilgiri and associated hills. The Visakhapatnam area of the E. Ghats, Andamans and Nicobars. Bangladesh; Myanmar. Resident and locally migratory.

An allied species, *L. beryllinus*, with crimson crown and orange nape occurs in Sri Lanka.

Habits: Arboreal. Affects leafy fruiting or flowering trees where its small size and green coloration obliterates it completely among the foliage. Seldom seen except when dashing across from one tree to another. Flight swift, several rapid wing strokes followed by a short pause with closed wings and a consequent slight dip. **Call**: A pleasant, sharp, trisyllabic *chee-chee-chee* repeated every couple of seconds, uttered in flight as well as while clambering amongst the foliage and blossoms. **Food**: Pulp of wild figs and other fruits, and flower nectar. Coral flowers (*Erythrina*) are specially favoured. The Lorikeet is unique among Indian birds for its habit of roosting at night like a bat, hanging head downwards. **Nesting**: *Season* — January to April. *Nest* — a hole excavated by the birds (?) in a rotten branch or tree-stump; usually a natural hollow. *Eggs* — 3, small, white, roundish ovals.

243. **Redwinged Crested Cuckoo**
Clamator coromandus (Linnaeus)

ACN: Chestnutwinged Cuckoo

Plate 32

Syn. No. 569

Local names: *Tseben* (Lepcha); *Yerra gola kokila* (Telugu); *Uppan kuyil* (Malayalam); *Ratu konde koha* (Sinhala); *Kondai kuyil* (Tamil).

Size: House crow+; more slender. Length *c.* 47 cm (*c.* 18 in). **Field Characters**: A crested, metallic glossy black cuckoo with a white half collar on hindneck and chestnut wings. Chin, throat, upper breast rust red, lower parts otherwise white. In flight crested head, white collar, red wings and white underparts diagnostic. Sexes alike. **Distribution**: Resident and breeding in the Himalayas from Garhwal eastwards to NE. India and thence southeast Asia; Bangladesh. Winter migrant to evergreen and other forests of south India and Sri Lanka. **Habits**: Singly or in loose parties of 3 or 4. Strictly arboreal. Behaviour similar to that of the Pied Crested Cuckoo. **Food**: Mainly caterpillars. **Call**: A harsh magpie-like gasping scream. A *klinck-klinck* call in rapid succession in flight as also when disturbed. Very vocal during the breeding season. Silent in winter. **Nesting**: *Season* — April to August. *Nest* — brood parasite mainly on Laughing Thrushes (*Garrulax* sp.).

244. **Pied Crested Cuckoo** *Clamator jacobinus* (Boddaert)

NN: Pied Cuckoo *Oxylophus jacobinus* (Boddaert)

Plate 32

Syn. No. 571

Local names: *Papiya, Kala papiya, Chatak* (Hindi); *Hor kuk* (Kashmir); *Kala bulbul, Shah bulbul* (Bengal); *Chatak* (Marathi).

Size: Myna±; with longer tail. **Field Characters**: A handsome, crested black-and-white cuckoo. White tips of tail feathers, and a roundish patch on wings conspicuous in flight. Singly, or pairs, in wooded country. **Distribution**: Practically the entire Indian Union up to about 2500 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races, the larger *serratus* of N. India being a rains visitor, presumably from Africa. Resident and locally migratory. **Habits**: Nest-parasitic. Frequents open, well-wooded country. Commonly found in the neighbourhood of habitations. Its local migrations are largely controlled by the SW. monsoon. Arrival and presence in a locality advertised by the birds chasing one another, flying from tree to tree and calling excitedly a rather plaintive, metallic, *piu-piu-pee-pee-piu .... pee-pee-piu*, or merely a tinkling *piu ... piu*, etc. Chiefly arboreal, but occasionally descends to ground and hops about in search of food, grasshoppers, hairy caterpillars, and sometimes berries. **Nesting**: *Season* — chiefly June to August, coinciding locally with the breeding of its accustomed hosts. Parasitic chiefly on babblers of the *Turdoides* group. *Eggs* — blue, similar to those of the fosterers, but when more than one cuckoo egg is in a nest, uncertain whether these are the product of the same or of different females.

245. **Common Hawk-Cuckoo** or **Brainfever Bird**
Cuculus varius Vahl

Plate 32

Syn. No. 573

Local names: *Kapak, Upak, Papiya* (Hindi); *Bharao* (Mirshikars, Bihar); *Chokgallo* (Bengal); *Kutti pitta* (Telugu); *Zokkhat* (Deccan); *Bappaiyo* (Gujarati); *Shikra kuyil* (Malayalam).

Size: Pigeon. Slenderer with longer tail. **Field Characters**: Ashy grey above; whitish below, cross-barred with brown. Broadly barred tail. Sexes alike. Superficially very like the Shikra hawk; also in flight and movements. Singly, in wooded country. **Distribution**: The Indian Union from about 800 m in the Himalayas south; Pakistan; Bangladesh; Sri Lanka. Resident and locally migratory. **Habits**: Nest-parasitic. Inhabits light forest; also partial to gardens, groves and mango topes, etc., near human habitations. Mostly silent during winter, and therefore liable to be overlooked. Becomes increasingly obstreperous with the advance of the hot weather. **Call**: A loud, screaming *brain-fever, brain-fever*, repeated with monotonous persistency 5 or 6 times, rising in crescendo and ending abruptly. Heard all through the day and frequently during moonlit nights. The call is rendered in Hindi as *pee-kahan*? ('Where is my love?') and in Marathi as *paos-ala* ('Rain's coming!'). **Food**: Hairy caterpillars and other insects, berries and wild figs, etc. **Nesting**: *Season* — March to June, coinciding with that of *Turdoides* babblers on whose nests it is parasitic. *Eggs* — usually a single in each nest, blue, like that of the host. Hatchling reared to maturity by foster parents.

246. **Indian Cuckoo** *Cuculus micropterus* Gould

Plate 32

Syn. No. 576

Local names: *Bou-katha-kao* (Bengal); *Kyphal pakka* (U.P., Mussooree); *Kupul pakki* (Himachal Pradesh); *Kya-phal-pako* (Nepal); *Takpo* (Lepcha); *Kang ka tong* (Bhutea); *Kapoo* (Hunza).

Size: Pigeon±; but slender and longer tail. Length *c.* 33 cm (13 in.). **Field Characters**: Above dark slaty grey, brown tinged. Pale ashy and white below barred with broad black bands. Readily distinguished from other similarly coloured cuckoos by the broad black subterminal band to its tail. **Distribution**: Throughout the subcontinent except the arid areas of Rajasthan and North Gujarat. Also Andamans and Nicobars; Sri Lanka. Usually in fairly wooded country. **Habits**: chiefly arboreal, keeping singly to top canopy. Seen flying hawk-like above the forest canopy. **Food**: Mainly caterpillars, hairy and otherwise. Other insects. Occasionally descends to the ground to search among the litter. **Call**: Very distinct and diagnostic. A loud, far-reaching fluty whistle with a wide range of suggestive renderings as *orange-pekoe, kyphal-pakkal bo-kotako, crossword puzzle* repeated montonously and intermittently for hours on end, with each stretch of calls running continuously for 5 minutes or more. Very vocal when breeding. **Nesting**: *Season* — mid-March to August. Brood parasite on drongos, orioles, etc.

247. **Cuckoo** *Cuculus canorus* Linnaeus

Plate 32

Syn. No. 578

Local names: *Phuphu, Kupwah* (Kumaon); *Kukku* (Lepcha); *Akku* (Bhutea); *Hor kuk, Shakuk, Kuki* (Kashmir).

Size: Pigeon±; slender, longer tail. Length *c.* 33 cm (13 in.). **Field Characters**: Dark ash grey above, pale below on chin, foreneck and breast. Otherwise white below cross-barred with black. Tail blackish brown, spotted and tipped with white. *Female* has a rufous tinge on upper breast, throat and sides of neck. Females occasionally in a hepatic phase with upper parts barred chestnut and blackish brown. **Distribution**: Resident. Breeds in the Himalayas from mid-March to August. Otherwise dispersed throughout the Peninsula. **Habits**: Largely arboreal. Keeping to the canopy in well-wooded country. Silent and non-obtrusive in non-breeding season, and thus easily overlooked. **Food**: Insects, predominantly hairy caterpillars and cicadas. **Call**: The distinctive *cuck-koo* repeated in long unbroken runs at the rate of about one per second. **Nesting**: *Season* — mid-March to August. Brood parasite of a wide range of host birds.

248. **Indian Baybanded Cuckoo** *Cacomantis sonneratii* (Latham)

Plate 32

Syn. No. 582

Local names: *Basha katti pitta* (Telugu); *Chenkuyil* (Malayalam); *Pattavali lal koyal* (Gujarati).

Size: Myna+. **Field Characters**: A slim cuckoo bright rufous above conspicuously cross-barred with brown, whitish below with fine wavy cross-bars, also on sides of head and neck. Tail rufous tipped with white, and subtipped black. Sexes alike. **Distribution**: Practically throughout India but evident mainly during the monsoon. More common in the south than in northern India. **Habits**: Affects wooded country. Arboreal and usually seen singly. **Food**: Caterpillars and bugs. **Call**: A distinct four-noted whistle *wee-ti-tee-ti* pleasant, but persistent and monotonous. It also has a clear whistling ventriloquial song *tee-titee-teeti-teeti* in ascending scale. **Nesting**: Brood parasite of ioras, bulbuls, minivets and small babblers. *Season* — Coinciding with that of host species.

249. **Plaintive Cuckoo** *Cacomantis passerinus* (Vahl)

ACN: Greybellied Cuckoo

Plate 32

Syn. No. 584

Local names: *Pousya* (Marathi); *Chinna katte pitta* (Telugu); *Koha* (Sinhala); *Kuyil* (Tamil); *Cherukuyil* (Malayalam); *Nani rakhodi koyal* (Gujarati).

Size: Between Bulbul and Myna. **Field Characters**: A slim arboreal bird, dark grey above, whitish below with grey chin and throat. White-tipped black tail, and a white patch on underside of black wings prominent in flight. *Female* similar but sometimes 'hepatic', i.e. bright chestnut above and on throat, barred with black on back and on white underparts. Singly, in scrub and openly wooded country. In normal plumage confusable with Dark

Grey Cuckoo-Shrike (*Coracina melaschistos*); in hepatic phase with Baybanded Cuckoo (*Cacomantis sonneratii*). The latter has a very different call *wee-tit-ee-ti* reminiscent of *cross-word-puzzle* Indian Cuckoo but in much higher key. **Distribution**: Practically throughout Indian Union south of the Himalayas (except the arid NW.), east to Bhutan, Meghayala and W. Bengal. Pakistan; Sri Lanka (winter). The Rufousbellied population *Cocomantis merulinus* occupies the rest of the subcontinent from Bhutan, W. Bengal to Assam, Manipur, Bangladesh thence east to Myanmar. **Habits**: Solitary, arboreal, insectivorous, with hawk-like flight. **Food**: Plant bugs, caterpillars, and other insects. **Call**: Normally a high pitched *p'teer, p'teer, p'teer*, or *peter-peter*. Also a pleasant, plaintive whistling song *pi-pi-pipeepeepi-pipeepee,* etc., delivered from exposed tree-top, with tail depressed and wings drooping. **Nesting**: *Season* — July to September (SW. monsoon). Parasitic chiefly on Tailor Birds and Ashy Wren-Warblers, its eggs matching their in coloration and markings in varying degree.

250. **Indian Drongo-Cuckoo** *Surniculus lugubris* (Horsfield)

Plate 33

Syn. No. 588

Local names: *Kario-vyem* (Lepcha); *Kakkatampuratti kuyil* (Malayalam).

Size: Black Drongo. Length *c.* 25 cm (10 in.). **Field Characters**: Closely resembles the black drongo. Separated only by the white undertail coverts and the outermost tail feathers being barred with white near their base. Call distinctive. **Distribution**: Himalayas up to *c.* 2000 m from Murree hills (Pakistan) eastwards to Arunachal Pradesh and NE. hill states. Throughout the Indian peninsula in well-wooded country. Bangladesh; Sri Lanka. **Habits**: Arboreal, keeping to the canopy foliage of trees and shrubs. Flight definitely cuckoo-like. **Food**: Caterpillars and insects. Occasionally fruit. **Call**: Distinct and diagnostic. Heard only during the monsoon. Calls from an exposed bare branch. A high-pitched whistling *pip-pip-pip* in runs of 5 to 6 or more, rising in pitch with each *pip*. Calls with monotonous persistence. **Nesting**: *Season* — March to October. Brood parasite on drongos, minivets, babblers, etc. Imperfectly known.

251. **Koel** *Eudynamys scolopacea* (Linnaeus)

ACN: Asian Koel

Plate 33

Syn. No. 590

Local names: *Koel* (Hindi); *Kokil, Kokila* (Bengal, Marathi); *Nalla kovela* - male, *Poda kovela* - female (Telugu); *Kuyil, Pullikuyil, Kakkakuyil* (Malayalam); *Koha, Gomera koha* (Simhala); *Kuyil* (Tamil); *Karlu koel* - male, *Dindin koel* - female (Maldive Is.).

Size: House Crow; slenderer, with longer tail. **Field Characters**: Male glistening black, with yellowish green bill and crimson eyes. Female brown, profusely spotted and barred with white. Familiar shrieking crescendo call, *kuoo-kuoo-kuoo*. Singly or pairs, in groves of trees, etc. **Distribution**: The entire Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three races, the NE. India-Myanmar race *malayana* being larger than the Indian-Sri Lankan *scolopacea*. Resident and also locally migratory. **Habits**: Brood-parasitic. Arboreal. Frequents gardens, groves and open country abounding in large leafy trees. Silent

in winter, thus often overlooked and recorded as absent. Becomes increasingly noisy with the advance of the hot weather, and then one of the earliest bird voices at dawn. The call begins with a low *kuoo*, rises in scale with each successive *kuoo* until it reaches fever pitch at the seventh or eighth, and breaks off abruptly. It is soon commenced all over again. The female only utters a sharp, quick-repeated *kik-kik-kik-kik* as she dashes from tree to tree. **Food**: Largely fruits and berries; also caterpillars and insects. Flight straight and swift with rapid wing beats. **Nesting**: *Season* — mainly April to August, coincident with that of its normal hosts, the House- and Jungle crows. *Eggs* — smaller but similar to the crows'; pale greyish green or stone colour, speckled and blotched with reddish brown. As many as 13 have been found in a single crow's nest.

252. **Large Greenbilled Malkoha** *Rhopodytes tristis* (Lesson)

NN: Greenbilled Malkoha *Phaenicophaeus tristis* (Lesson)

Plate 33

Syn. No. 593

Local names: *Bon kokil* (Bengal); *Bamura* (Assam); *Sanku* (Lepcha).

Size: Pigeon±; with long (38 cm) tail. Length 51 cm (23 in.). **Field Characters**: The long steeply graduated white tipped tail, and naked crimson orbital patch and yellowish green bill diagnostic. In flight white tail tips conspicuous. Ashy grey above with dark green gloss. Tail greenish black, white-tipped. Chin, throat, sides of head yellowish ashy grey darkening to black on vent. Feathers with black bristly shafts on forehead, chin, throat and breast. **Distribution**: Outer Himalayas up to 1800 m from Garhwal to Arunachal and NE. India, south to the E. Ghats. Bangladesh. **Habits**: Affects dense scrub in evergreen forests. Sluggish, skulker keeping to impenetrable thickets, clambering among the dense cover. Seen only when in flight between thickets. **Food**: Insects, lizards and other small animals. **Call**: A low croaking *kokoko* uttered at intervals of a few seconds. **Nesting**: A non-parasitic cuckoo. *Season* — April to August. *Nest* — a flimsy cup of twigs and rootlets placed in dense jungle. *Eggs* — 2 to 4, commonly three, white. Both sexes incubate.

253. **Small Greenbilled Malkoha** *Rhopodytes viridirostris* (Jerdon)

NN: Bluefaced Malkoha *Phaenicophaeus viridirostris* (Jerdon)

Plate 33

Syn. No. 595

Local names: *Kappra, Popiya* (Hindi); *Wamana kaki* (Telugu); *Kalaha koha, Punchi mal koha* (Sinhala); *Kuyil* (Tamil); *Pacha chundan* (Malayalam).

Size: House Crow-; slimmer, with longer tail. **Field Characters**: A greenish ashy grey non-parasitic cuckoo with rufous suffused underparts. Bright green bill; naked blue patch round eye; long, broad, graduated, conspicuously white-tipped tail. Sexes alike. Singly or pairs skulking in dry thorn jungle. **Distribution**: Resident; locally common. Peninsular India from Gujarat to Orissa and south to Kanyakumari. Sri Lanka. Keeps to rather dry scrub-and-bush, plains and broken foothills country with euphorbia and lantana thickets, up to *c.* 1000 m elevation. **Habits**: Reminiscent of Crow-Pheasant. Creeps through thickets and clambers actively among branches of low trees, rarely descending to the ground. A poor flier, seldom seen on the wing except when moving from one thicket to another.

Food: Caterpillars, large insects (grasshopper, mantis, etc.), lizards and other small animals; probably also some berries. **Call**: Usually silent. A low croak, *kraa*, sometimes heard. **Nesting**: *Season* — chiefly March to May, but also other months. *Nest* — an untidy platform of thorny twigs like a dove's nest, at moderate height in a euphorbia bush, bamboo brake and the like. *Eggs* — normally 2, chalky white, roundish. Period of incubation and share of the sexes undetermined.

254. **Sirkeer Cuckoo** *Taccocua leschenaultii* Lesson

NN: Sirkeer Malkoha *Phaenicophaeus leschenaultii* (Lesson)

Plate 33

Syn. No. 597

Local names: *Jangli tota* (Hindi); *Adavi chiluka, Potu* (or *Putta*) *chiluka* (Telugu); *Kalli kuyil* (Malayalam); *Patthang atti-kukkula* (Sinhala).

Size: House Crow±; with longer, broader tail. **Field Characters**: An obvious relation of the Crow-Pheasant. A heavy-tailed earthy brown and rufous bird, with fine black shaft-streaks to the feathers. White tips to the graduated cross-rayed tail feathers prominent. Also the bright cherry-red and yellow stout hooked bill. Sexes alike. Singly or pairs, on ground in broken scrub country and deciduous secondary jungle. **Distribution**: All India south and east of a line from Kutch to Shimla; Bangladesh; Pakistan; Sri Lanka. Three races, differentiated on size and details of coloration. **Habits**: Largely terrestrial. Stalks about amongst thickets like Crow-Pheasant, searching for food; insects, lizards, fallen fruits and berries, etc. Runs swiftly through undergrowth looking like mongoose, but is a feeble flier. Ascends trees rapidly, hopping from branch to branch with great agility. **Call**: Occasional. A sharp loud *kek-kek-kek-kerek-kerek-kerek* of the quality of the Roseringed Parakeet's shrieks; also reminiscent in a way of call of Barred Jungle Owlet (*Glaucidium radiatum*). **Nesting**: Non-parasitic. *Season* — March to August, varying with locality. *Nest* — a shallow saucer of twigs lined with green leaves, in a thorn bush or sapling 2 to 7 m up. *Eggs* — 2 or 3, white, with a chalky texture.

255. **Crow-Pheasant** or **Coucal** *Centropus sinensis* (Stephens)

ACN: Greater Coucal

Plate No.33

Syn. No. 602

Local names: *Mahoka* (Hindi); *Jemudu kaki, Chemara kaki* (Telugu); *Kalli kaka, Chempakam* (Tamil); *Atti kukkula, Bu kukkula* (Simhala); *Uppan, Chemboth* (Malayalam); *Kumbhar kaola* (Marathi); *Hokko, Ghoyaro* (Gujarati); *Kooka* (Gulf of Kutch).

Size: Jungle Crow; with long, broad tail. **Field Characters**: A clumsy, glossy black bird with conspicuous chestnut wings and long, broad, black, graduated tail. Sexes alike. Singly or pairs, stalking along the ground in undergrowth. **Distribution**: The Indian Union (from about 2000 m in the Himalayas); Bangladesh; Pakistan; Sri Lanka; Myanmar. Four races on size and coloration details. **Habits**: One of the non-parasitic cuckoos, and largely terrestrial. Affects open forest, scrub-and-bush country interspersed with grassland and shrubbery, and groves about human habitations. Stalks along the ground, or clambers and hops with agility amongst branches of shrubs in search of food. **Food**: caterpillars, large insects, snails, lizards, young mice, and birds' eggs. **Call**: A deep, resonant *coop-coop-*

coop, etc., in series of 6 or 7 and up to 20, repeated quickly in varying tempo. Two birds frequently join in an uneven duet. Also utters a variety of harsh croaks and gurgling chuckles. **Nesting**: *Season* — February to September, varying locally. *Nest* — a large untidy globular mass of twigs, leaves, etc., with a lateral entrance. Placed in the centre of a tangled thorny shrub at moderate height. *Eggs* — 3 or 4, chalky, glossless white. Both sexes share all domestic duties.

256. **Lesser Coucal** *Centropus toulou* (P.L.S. Muller)

NN: *Centropus bengalensis* (Gmelin)

Plate 33

Syn. No. 605

Local names: *Chhoto-kuku* (Bengal); *Ulu kukuha* (Assam); *Nyong* (Lepcha); *Kyok-kyok* (Bhutea); *Vari uppan* (Malayalam).

Size: House Crow-; with a long graduated tail. Length 33 to 37 cm. **Field Characters**: Similar to Common Crow-Pheasant, but much smaller. Tail feathers tipped white. Sexes alike. Female larger. **Distribution**: Submontane tracts of Himalayas, Dehra Dun eastwards, widely and patchily distributed in the Peninsula. Bangladesh; Sri Lanka (rare vagrant). Confined to a specialised habitat of tall grassland and dense scrub jungle bordering forests, reed beds and elephant grass areas. **Habits**: Similar to Common Crow-Pheasant's. **Food**: Largely insects particularly grasshoppers. **Call**: A double series of notes *whoot whoot whoot* followed by a pause then *kurook kurook kurook*. The first call is ventriloquistic. **Nesting**: *Season* — May to September. *Nest* — a domed oval structure of twigs and grass. *Eggs* — 3 or 4, white. Both sexes share parental duties.

257. **Barn** or **Screech Owl** *Tyto alba* (Scopoli)

Plate 34

Syn. No. 606

Local names: *Kuraya, karail, Buri churi* (Hindi); *Lakshmi pecha* (Bengal); *Ghubad* or *Ghuvad* (Marathi); *Revi devi* (Gujarati); *Chavu kuruvi* (Tamil); *Chaao pitta* (Telugu); *Bakumuna* (Sinhala); *Veli moonga* (Malayalam); *Madoosa* (Bihar); *Ghughu* (Damoh, Madhya Pradesh).

Size: Jungle-crow±. **Field Characters**: A typical owl, golden buff, and grey above finely stippled with black and white; silky white below tinged with buff and normally spotted dark brown. Large round head with a conspicuous ruff of stiff feathers surrounding a comically pinched white monkey-like facial disc. Sexes alike. Singly or pairs, about deserted buildings and ruins. **Distribution**: The entire Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races chiefly concern us. In numerous other races the Barn Owl has an almost world-wide range. **Habits**: Inseparable from the haunts of man. Deserted buildings and cities, and ancient forts and ruins invariably hold their quota. Purely nocturnal. Spends the daytime standing upright and dozing in some dark niche. Emerges after dusk with a wheezy screech, flying about silently and ghost-like, hunting for rats and mice. **Call**: A mixture of harsh discordant screams and weird snoring and hissing notes. **Food**: Almost exclusively rats and mice, hence of great economic usefulness. **Nesting**: *Season* — undefined. Practically all year. *Nest* — a collection of straw, twigs, rags and rubbish padded into tree-hollows, holes in ruined walls, or in the space between ceiling and roof of a dwelling house. The same site is used year after year. *Eggs* — 4 to 7, white, smooth, roundish.

258. **Grass Owl** *Tyto capensis* (A. Smith)

NN: Eastern Grass Owl *Tyto longimembris* (Jerdon)

Plate 34

Syn. No. 608

Local name: *Sun ulu sordi* (Assam).

Size: House Crow-; length *c.* 36 cm (14 in.). **Field Characters**: Very similar to the Barn Owl but found only in grasslands. Dark brown above spotted with white, below white with scattered brown spots. Facial disc white or pinkish white bordered by a brown ruff. A prominent black spot in front of each eye. Legs tightly feathered. **Distribution**: Resident, Dehra Dun eastwards. Recorded in the Peninsula from Madhya Pradesh to Kerala. In tall grass jungle and open grassland. **Habits**: Almost entirely terrestrial; spends the day standing bolt upright and dozing. Active at dusk and at night. **Food**: Mainly field mice, insects, as well as small birds and reptiles. **Call**: Not specifically recorded but said to resemble barn owl's screeches. **Nesting**: *Season* — October to March. *Nest* — a pad of flattened grass amongst tall grass. *Eggs* — 4 to 6, pure white. Breeding habits unknown.

259. **Scops Owl** *Otus scops* (Linnaeus)

ACN: Eurasian Scops Owl

Plate 35

Syn. No. 617

Size: Myna-; Length 19 cm (7.5 in.). **Field Characters**: Small slim owl, with ear tuffs and feathered legs. Delicately vermiculated greyish brown, varying in shade. **Distribution**: Throughout the subcontinent including Andamans and Nicobars; Sri Lanka. Several races distinguished on primary feathers and colour characters. **Habits**: Nocturnal, hiding in tree hollows and thick foliage during the day. **Food**: Insects, mice, small birds and reptiles. **Call**: A monotonously repeated three note call described *tuk tuk tuk* or *wuk, chug chug* repeated at short intervals, all through the night. **Nesting**: *Season* — February to May. *Nest* — a hollow in a tree trunk or wall at moderate heights. *Eggs* — 3 or 4, white. Other details unknown.

260. **Collared Scops Owl** *Otus bakkamoena* Pennant

ACN: Indian Scops Owl

Plate 35

Syn. No. 621

Local names: *Pedda chitta guba* (Telugu); *Punchi bassa* (Simhala); *Sinna andai, Nethe* (Tamil, Malayalam).

Size: Myna±; = Spotted Owlet. **Field Characters**: A pretty little 'horned' owlet, grey-brown or rufous-brown above, vermiculated and mottled with whitish. A pale half-collar on upper back. Chin and throat buffy white, the latter barred and stippled with black. Underparts buff streaked with black and with fine wavy reddish brown bars. Sexes alike. Singly or pairs, in open wooded country. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Several races, differing chiefly in details of coloration. **Habits**: Nocturnal. Affects open deciduous forest, and groves of trees in or near towns and villages. Oftener heard than seen. **Call**: A soft interrogative *wut?* repeated monotonously every 2 or 3 seconds over long stretches of time, between dusk and dawn.

Also an occasional bubbling, chattering note in ascending scale. **Food**: Beetles and other insects; occasionally mice and lizards. **Nesting**: *Season* — principally January to April. *Nest* — a natural hollow in a tree-trunk or bough or a disused woodpecker or barbet nest-hole, without any lining. *Eggs* — 3 to 5, white, spherical.

261. **Indian Great Horned Owl** *Bubo bubo* (Linnaeus)

ACN: Eurasian Eagle-Owl

Plate 34

Syn. No. 627

Local names: *Ghughu* (Hindi); *Gug* (Sind); *Hutom pecha* (Bengal); *Ghubad* (Marathi); *Ghuvad* (Gujarati); *Yerra gudla guba* (Telugu); *Komban aandai* (Tamil); *Komban moonga* (Malayalam).

Size: Pariah Kite±. **Field Characters**: Similar to the Fish Owl in general effect, but fully *feathered* legs diagnostic. Sexes alike. Singly or pairs, in wooded rocky ravines or shady groves. **Distribution**: The entire Indian Union; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. Four races, separated on the basis of colour and size inhabit the subcontinent. This genus of Horned Owls has a practically world-wide distribution. **Habits**: Mainly nocturnal. Inhabits well-wooded but open and cultivated country, and avoids heavy forest. Favourite haunts are bush-covered rocky hillocks and ravines, and steep outscoured banks of rivers and streams. Spends the day under shelter of a bush or rocky projection, or in ancient mango and similar thickly foliaged trees near villages. **Call**: A deep, solemn, resounding *bu-bo* (2nd syllable much prolonged), not loud but with a curious penetrating quality. **Food**: Small mammals, birds, reptiles; occasionally large insects, fish and crabs. Observed striking down a full-grown peacock. A beneficial species on account of the heavy toll it takes of field rats and mice in agricultural areas. **Nesting**: *Season* — principally November to April. *Eggs* — 3 or 4, creamy white, broad roundish ovals with a smooth texture. Laid without nest on bare soil in a natural recess in earth bank, on ledge of cliff, or under shelter of bush on level ground.

262. **Forest Eagle-Owl** *Bubo nipalensis* Hodgson

ACN: Spotbellied Eagle-Owl

Plate 34

Syn. No. 628

Local names: *Huhu, Huhu cheel* (Nepal); *Migdori* (Bhutea); *Umman, Kattu munga* (Malayalam); *Dao bu gao deba* (Cachar).

Size: Pariah Kite±; heavier bird; length *c.* 63 cm (25 in.). **Field Characters**: A large brown owl with two outwardly slanting erect black-and-white 'horns' or ear-tufts, fully feathered legs and brown eyes. Below fulvous white barred with blackish on throat and breast. Sexes alike. **Distribution**: Submontane tracts and foothills up to 200 m in the Himalayas from Kumaon eastwards. Western Ghats in the Peninsula from *c.* 16°N. latitude to western Karnataka and Kerala. Shevroy Hills, Eastern Ghats. Sri Lanka; Bangladesh. **Habits**: Occurs in dense evergreen and moist deciduous forests. Largely nocturnal spending the day on a densely foliaged tree. **Food**: A powerful owl capable of killing birds up to peafowl in size and mammals of the size of a jackal. **Call**: A deep and far reaching moaning hoot. Also believed to produce the blood curdling screams of the 'Devil Bird'. **Nesting**: *Season* — December to March. *Nest* — a hollow in an ancient tree or a refurbished eagle nest or a horizontal rock fissure. *Eggs* — a single egg, white. Said to defend its nest fiercely.

263. **Dusky Horned Owl** *Bubo coromandus* (Latham)

Plate 34

Syn. No. 630

Local names: *Gug* (Sind); *Jangli ghughu* (Lucknow, U.P.); *Radiyo ghuvad* (Gujarat).

Size: Pariah Kite±; heavily built. Length *c.* 58 cm (23 in.). **Field Characters**: Similar to the Great Indian Horned Owl but more grey or sooty and with paler. Yellow eyes *contra* deep orange yellow. The horns stand erect close to each other when the bird is perched. **Distribution**: Widely distributed throughout the plains of the subcontinent. **Habits**: Affects well-wooded and watered tracts. Mango tree groves, and old tamarind and other densely foliaged trees are preferred. Parochial and a pair often inhabits the same grove year after year. **Food**: Small mammals, birds, reptiles, large insects. **Call**: A distinct, deep and resonant *wo, wo, wo, wo-o-o-o* on a descending scale, uttered both day and night. **Nesting**: *Season* — November to April. *Nest* — sticks in the fork of the trunk of a large tree preferably near water and often in the vicinity of human habitation. *Eggs* — normally two, white.

264. **Brown Fish Owl** *Bubo zeylonensis* (Gmelin)

NN: *Ketupa zeylonensis* (Gmelin)

Plate 34

Syn. No. 631

Local names: *Amrai-ka-ghughu, Ullu* (Hindi); *Bhootoom pecha* (in imitation of its call. Bengal and East Pakistan); *Hoodoo* (Assam); *Machhimar ghuvad* (Gujarat), *Kooman* (Malayalam).

Size: Pariah Kite±. **Field Characters**: A large heavy brown owl, the underparts paler with dark vertical streaks especially about the breast. Feather tufts projecting above the head like long ears; large round yellow forwardly directed eyes. *Unfeathered* legs diagnostic. Sexes alike. Singly or pairs, in ancient trees near water. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races concern us, the Sri Lankan *zeylonensis* being smaller and darker than the Indian *leschenault*. **Habits**: Nocturnal. Affects well-wooded, well-watered tracts. Fond of overgrown ravines, etc., in the neighbourhood of jheels and streams, and groves of ancient densely foliaged trees about village tanks. **Call**: A deep hollow moaning, *boom-o-boom* with a peculiar - eerie and ventriloquistic quality, uttered at sundown on leaving the daytime retreat, and during night and early morning. **Food**: Fish, frogs, crabs, small mammals, birds, reptiles; occasionally carrion. **Nesting**: *Season* — December to March, but varying with locality. *Nest* — a natural tree-hollow or cleft of rock near water, occasionally lined with a few twigs. Sometimes an old eagle's nest is used. *Eggs* — 1 or 2, white, roundish with a slightly glossed though pitted texture. Vicinity of nest invariably bestrewn with cast-up pellets and remains of birds and small animals.

265. **Barred Jungle Owlet** *Glaucidium radiatum* (Tickell)

Plate 35

Syn. No. 636

Local names: *Jangli choghad* (Hindi); *Kala khusat* (U.P.); *Chhota kalpencha* (Bengal); *Punchi bassa* (Sinhala); *Sinna andai* (Tamil); *Adavi pagadigante* (Telugu).

Size: Myna±. **Field Characters**: General effect as of the Spotted Owlet, but dark brown above and conspicuously barred (not spotted) with pale rufous. Underparts rufous and white, closely barred with blackish brown. Sexes alike. Singly, in open deciduous forest. **Distribution**: Patchily over a great part of the Indian Union, excepting Rajasthan and the adjoining arid portions. Bangladesh (?); Sri Lanka. Not Myanmar or Pakistan. **Habits**: Crepuscular and nocturnal, but apparently little inconvenienced by sunlight and frequently on the move in daytime. Its preferential habitat, shared with the Racket-tailed Drongo, is open forest such as of mixed teak and bamboo. **Call**: A loud, not unpleasant *kao-kao-kao* followed by *kao-kuk, kao-kuk, kao-kuk* and so on, in increasing tempo. It is somewhat reminiscent of the Grey Junglecock's crow heard in the distance. **Food**: Mainly beetles and other insects. **Nesting**: *Season* — overall March to May. *Nest* — a natural tree hollow, usually unlined. *Eggs* — 2 to 4, roundish, ovals.

266. **Brown Hawk-Owl** *Ninox scutulata* (Raffles)

Plate 35

Syn. No. 642

Local names: *Chughad basra* (Hindi); *Kal pecha* (Bengal); *Moh sorai* (Assam); *Tang kyi per chi ok* (Lepcha); *Pagadigante vestam* (Telugu); *Punchi bassa* (Sinhala); *Sinna andai* (Tamil); *Pullunathe* (Malayalam).

Size: Pigeon±. **Field Characters**: Very hawk-like in appearance and movements. Dark greyish brown above, white below barred with reddish brown. Throat and foreneck brown-streaked fulvous. Sexes alike. **Distribution**: Practically the entire Indian Union from the Himalayan foothills at Dehra Dun eastward to NE. India and Bangladesh southward to Kerala and Sri Lanka. Also Andaman and Nicobar islands. Four subspecies. Plains and up to *c.* 1500 m elevation, in forest and well-wooded country with groves of trees along streams and nalas, often close to habitation. **Habits**: Crepuscular and nocturnal, spending the daytime in shady trees. *Flight* — rapid wing-beats and glides strikingly hawk-like. **Call**: Distinctive and diagnostic. Rather soft, musical *oo...uk...oo...uk*, etc., in runs of 6 to 20 repetitions. Very vocal during breeding season. **Food**: Large insects, frogs, lizards, mice, small birds, etc. **Nesting**: *Season* — overall January to July, varying locally. *Nest* — a natural hollow in a tree trunk. *Eggs* — 3 or 4, white, roundish. Incubation evidently by both sexes; period once recorded 24 days.

267. **Spotted Owlet** *Athene brama* (Temminck)

Plate 35

Syn. No. 650

Local names: *Oolloo, Khakusat, Khusattia, Chughad* (Hindi); *Pencha* (Bihar); *Kuture pencha* (Bengal); *Dang tang pum* (Lepcha); *Chibiru* (Sind).

Size: Myna±. **Field Characters**: A squat, white-spotted greyish brown little owl, with a typical large round head and forwardly directed staring yellow eyes. Sexes alike. Pairs or family parties, about villages, in ruins, and groves of ancient trees, etc. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. Three races, on size and depth of coloration. **Habits**: Chiefly crepuscular and nocturnal. Our commonest and most familiar owl. Affects all types of country excepting heavy forest. Particularly abundant about human habitations. Pairs spend the daytime in some hollow in an ancient tree-trunk or sitting huddled together on a secluded branch. They fly out fussily when suspicious of being observed, and bob and stare at the intruder from a distance in clownish fashion. **Call**: A large variety of harsh chattering, squabbling and chuckling notes, two individuals frequently combining in a discordant duet. **Food**: Chiefly beetles and other insects; also young birds and mice and lizards, etc. **Nesting**: *Season* — principally November to April. *Eggs* — 3 or 4, white roundish ovals. Laid on an untidy pad of tow or fibres in tree-hollows, holes in crumbling walls, or between ceiling and roof of deserted as well as occupied dwellings. Both sexes share all the domestic duties.

268. **Mottled Wood Owl** *Strix ocellata* (Lesson)

Plate 34

Syn. No. 657

Local names: *Girnari ghuvad* (Gujarati); *Kollikkuravan* (Malayalam).

Size: Pariah Kite±; dumpier and shorter tailed. **Field Characters**: A medium-sized vermiculated reddish brown owl without ear-tufts. Facial disc white with fine concentric black bars. Throat white-stippled chestnut and black. A white half-collar on foreneck. Sexes alike. Large amount of yellowish buff in wings conspicuous in flight. Singly or pairs in ancient leafy trees. **Distribution**: Practically all India from the Himalayas to Kerala and Punjab to W. Bengal. Not NE. India, Bangladesh or Sri Lanka. **Habits**: Crepuscular and nocturnal. Keeps to lightly wooded plains country. Partial to mango topes and groves of tamarind, banyan, etc., on village outskirts and in cultivation. Is of great economic benefit as destroyer of rodent pests. **Call**: A loud, somewhat eerie but pleasant quavering *chuhuaaa*. Also a single mellow hoot from time to time during night. **Food**: Rats, mice and squirrels; lizards, crabs, beetles, other large insects, etc. **Nesting**: *Season* — November to April. *Nest* — a natural unlined hollow in an ancient tree trunk. *Eggs* — 2, sometimes 3, roundish, creamy white. Incubation by both sexes; period unknown.

269. **Brown Wood Owl** *Strix leptogrammica* Temminck

Plate 34

Syn. No. 659

Local name: *Kollikkuravan* (Malayalam).

Size: Pariah kite-. Length *c.* 53 cm (21 in.). **Field Characters**: A large chocolate-brown owl with close barred underparts and a prominent white supercilium. Face disc white in the Himalayan race (*newarensis*) and rufous in the peninsular race (*indranee*). Tail tipped with white. A pure white patch on throat. Sexes alike. **Distribution**: Himalayas from Pakistan eastwards. Resident in the evergreen and moist-deciduous forests of the Western and Eastern Ghats. Sri Lanka. **Habits**: Nocturnal, keeps in pairs. Very shy and easily disturbed. **Food**: Small mammals, birds and reptiles. **Call**: A mellow musical *tok-tu hoo* repeated every few seconds. Also a variety of eerie shrieks and chuckles and loud bill snapping. **Nesting**: *Season* — January to March. *Nest* — a few sticks in the hollow of a tree, or on a shelf in a cliff face or on the ground below a rock or tree in a shady ravine. *Eggs* — normally two.

270. **Shorteared Owl** *Asio flammeus* (Pontoppidan)

Plate 35

Syn. No. 664

Local names: *Poocha moonga* (Malayalam); *Bassa* (Sinhala); *Aandai* (Tamil); *Bukhamoonu* (Maldivian).

Size: Pigeon+; length *c.* 38 cm (15 in.). **Field Characters**: A slim medium sized owl. Pale buff heavily streaked with dark brown. Head dark grey. Facial disc white intermixed with black, surrounded by dark brown ruff. Two upstanding ear-tufts above the brown eyes, wings and tail barred rufous and black. Pale buff below brown-streaked on breast. In flight rufous upper and white underside of pointed wings, with prominent dark bar and blackish tips diagnostic. **Distribution**: Winter visitor to the Indian Subcontinent between September and April. Sri Lanka (occasional). **Habits**: Seen singly or loose parties of 5 or 6 or more on the ground in scrubby grassland. When flushed flies leisurely away and drops to the ground again to the shelter of a grass clump or bush. **Food**: Small mammals, birds and insects. **Call**: Silent in winter. **Nesting**: Extralimital.

271. **Bay Owl** *Phodilus badius* (Horsfield)

Plate 35

Syn. No. 609

Local names: None recorded.

Size: Pigeon-. **Field characters**: A small pretty owl, chestnut bay spotted with black and buff above. The outer webs of first two primaries barred black and white. Short ear like tufts above sides of head. Facial disc vinous pink surrounded by black and chestnut tipped white ruff. A distinctive chestnut patch round each eye. Tail chestnut. Vinous pink below spotted with black and white. Legs feathered. Sexes alike. **Distribution**: Nepal eastwards in heavy evergreen forests. A race in Kerala (Anamalai, Thattakad) and another in Sri Lanka. Rare. **Habits**: Completely nocturnal and uncomfortable in light. Spends the day in dark tree trunk hollows. Hunts from a perch and focuses by rocking the head from side to side. Flies rapidly and easily between the stems of saplings. **Food**: Mainly small mammals, birds, lizards and large insects. **Call**: Little known. Said to be a soft hoot. Also a three note whistle like a man whistling to his dog. **Nesting**: *Season* — March to May. *Nest* — a hollow in a tree trunk. *Eggs* — 3 to 4, white. Breeding details unknown.

272. **Jungle Nightjar** *Caprimulgus indicus* Latham

ACN: Grey Nightjar

Plate 36

Syn. No. 671

Local name: *Chippak, Chhappa, Dabchiri, Dabnak* (Hindi); *Tamor* (Lepcha); *Wapatshai* (Naga); *Dao chuk* (Cachari).

Size: Pigeon-. Length *c.* 32 cm (12½ in.). **Field Characters**: Four outer pair of tail feathers with white spots in the male. Absent in female. No white spot on primaries. As in other nightjars general plumage brownish buff with black streaks and spots. Tarsus feathered. Coloration cryptic. **Distribution**: A northern race *hazarae* resident and locally migrant along the entire Himalayas and eastern India. The nominate race *indicus* all India south of the Himalayas except western Rajasthan, Kutch. Race *jotaka* is presumably a winter visitor to Bhutan and the Andamans, and the race *kelaarti* is resident in Sri Lanka. **Habits**: A forest species. Crepuscular and nocturnal. Indistinguishable from the ground litter in daytime roost. Emerges after sunset to hawk insects on silent wings. Often squats on jungle roads at night, its eyes reflecting redly in car headlights, fluttering off at the last moment. **Call**: A distinctive *chuckoo-chuckoo-chuckoo* repeated endlessly throughout the night in 3 to 5 minute stretches. Particularly vociferous on moonlit nights. The peninsular race has an additional call *uk-kruthroo* not recorded in the Himalayan form. **Food**: Insectivorous, largely winged insects caught in flight. **Nesting**: *Season* — Principally between March and May. No nest is made. *Eggs* — 2, white with grey or greyish brown markings in the Himalayan race; pale or creamy buff eggs with blackish or reddish brown spots in the peninsular race. Both sexes incubate.

273. **Longtailed Nightjar** *Caprimulgus macrurus* Horsfield

ACN: Largetailed Nightjar

Plate 36

Syn. No. 675

Local names: *Ita kholi* (Assam); *Dao chuck* (Cachari); *Chupka* (Bihar).

Size: Pigeon±; length 33 cm (13 in.). **Field Characters**: Very similar to *C. indicus*. A medium-sized brownish buff nightjar with blackish streaks on crown, a white spot on first four primaries and two outer tail-feathers broadly tipped white (buff tipped in the race *albonotatus* of the Himalayan foothills and eastern India) in male as also in the female in the Peninsular race *atripennis*. Tarsus fully feathered (*v.* partially in *C. indicus*). **Distribution**: Resident in the Indian Union in four races. Bangladesh; Sri Lanka. **Habits**: Occurs in evergreen and moist deciduous biotopes also shady nullahs in mixed bamboo forests and secondary scrub jungle up to 2000 m. Crepuscular and nocturnal as other nightjars and with similar habits. **Food**: Night flying insects. **Call**: A loud metallic *chaunk, chaunk, chaunk*, etc., repeated 50 times or more in one run. Particularly noisy during breeding season and on moonlit nights. **Nesting**: *Season* — March to May. *Nest* — no nest built. *Eggs* — 2, laid on bare ground, pale to rich salmon buff speckled or spotted with reddish brown. Both sexes incubate.

274. **Common Indian Nightjar** *Caprimulgus asiaticus* Latham

Plate 36

Syn. No. 680

Local names: *Chapka* (Hindi); *Deshi chhapo* (Gujarati).

Size: Myna±. **Field Characters**: A soft-plumaged, crepuscular and nocturnal bird, mottled grey-brown, buff and fulvous, black-streaked above, of a complicated camouflaging pattern. White patches on wings conspicuous in flight. Sexes alike. Singly, in scrub country, crouching on ground by day, hawking insects at dusk. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and partly local migrant. The Sri Lankan race *eidos* is smaller than the Indian *asiaticus*. **Habits**: Frequents scrub and stony country, dry overgrown nullahs, compounds and groves in the neighbourhood of cultivation and human habitations. Spends the day squatting under shelter of a bush or along a low bough. Active after sunset, and all through night, hawking insects. Flight peculiarly moth-like, silent and wandering — long sailing glides alternated with somewhat leisurely flapping of the wings. **Call**: Familiar and diagnostic, *chuk-chuk-chuk-chuk-r-r-r*, well likened to a stone gliding over a frozen pond. **Food**: Beetles, moths and other insects. **Nesting**: *Season* — not well-defined, chiefly February to September. No nest. *Eggs* — 2, pale pink to deep salmon colour, spotted and blotched with reddish brown and inky purple; laid on bare ground in bamboo or bush jungle.

275. **Franklin's** or **Allied Nightjar** *Caprimulgus affinis* Horsfield

ACN: Savanna Nightjar

Plate 36

Syn. No. 682

Local names: *Chhippak, Chhappa, Dabchiri* (Hindi); *Tmor* (Lepcha).

Size: Myna±; length 25 cm (*c.* 10 in.). **Field Characters**: Outer tail feathers all white except at tip in male, mottled in female. A conspicuous buff coloured V from shoulders to half way down back when squatted. Spots in the middle of first four primaries white in male, rufous buff in female. **Distribution**: Widely but patchily distributed from sub-montane Himalayas to throughout the subcontinent. **Habits**: Crepuscular and nocturnal as other nightjars. Affects bare scrubby hillsides scoured by nullahs, light deciduous forests and grassland. **Food**: Flying insects. Drinks from forest pools while on wing. **Call**: A distinct and characteristic whistling, not loud and penetrating, heard during the breeding season commencing before nightfall continued throughout the night and after dawn. **Nesting**: *Season* — March to August. *Nest* — not built. *Eggs* — 2, pale to rich salmon, spotted and blotched with deep red. Both sexes share incubation.

276. **Indian Edible-nest Swiftlet** *Collocalia unicolor* (Jerdon)

ACN: Indian Swiftlet

Plate 36

Syn. No. 685

Local names: *Wehi lihiniya* (Sinhala); *Kudukaraya* (Veddah); *Sarappakshi* (Malayalam).

Size: Sparrow-; *c.* 12 cm (4.75 in.). **Field Characters**: Small and slender brown swift with a slightly forked tail blackish and bat-like fluttering flight. Sexes alike. **Distribution**: Resident along coastal area and Western Ghats from south Konkan to Kerala. Also

Sri Lanka. **Habits**: Inhabits in large colonies the caves and grottoes from sea level to *c.* 2200 m. Uses echo location in the underground and dark caves in which it roosts at night. **Food** Chiefly flies, bugs, wasps and bees. **Call**: Roosting birds give out a chittering call throughout the night. **Nesting**: *Season* — March to June. *Nest* — made of saliva, the salivary glands enlarging during this period, mixed with feathers, grass and moss. The nests of pure saliva (50% protein) much prized as a culinary item by the Chinese for birds' nest soup and are commercially exploited. More so the nest of the Andaman "White-nest Swiftlet" *Collocalia fuciphaga inexpectata* endemic to the Andamans and Nicobars. Two white oval eggs are laid. Nests are densely clustered together in the roosting caves.

277. **Alpine Swift** *Apus melba* (Linnaeus)

NN: *Tachymarptis melba* (Linnaeus)

Plate 36

Syn. No. 694

Local names: *Badi ababeel* (Hindi): *Pahadi ababeelo* (Gujarati); *Sarappakshi* (for all swifts — Malayalam).

Size: Bulbul+. **Field Characters**: A large swift, dark brown above, white below with a diagnostic dark brown band across the breast. Tail short and square-cut. Wings, very long, pointed and bow-like. Sexes alike. Loose parties, dashing at terrific speed around hilltops, etc. **Distribution**: Practically throughout the Indian Union, plains and hills; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident, sporadic and locally migratory. Three races, on size and shade of coloration. **Habits**: An extremely fast and sustained flier, with a speed estimated at between 130 and 250 km p.h. They cover enormous distances during the day's foraging and make sudden and momentary appearances in localities a hundred (or perhaps many hundred) kilometres from likely roosting sites, passing on as suddenly as they appeared. The birds spend the daylight hours hawking insects high up in the air, but descend to lower levels in cloudy overcast weather. In the evenings they 'ball' up in the heavens with noisy twittering in the manner of the House Swift. **Food**: Hemipterous bugs and other tiny winged insects. **Nesting**: *Season* — May/June in the north; December/January in the south. *Nest* — a rough pad of straw, feathers and rubbish agglutinated with the bird's saliva placed on ledges in fissures of cliffs and natural caves, in colonies. The cliffs flanking Jog Falls in Karnataka are a well-known nest locality in S. India. *Eggs* — 2 to 4, glossless white, pointed ovals.

278. **House Swift** *Apus affinis* (J.E. Gray)

ACN: Little Swift

Plate 36

Syn. No. 703

Local names: *Ababeel, Babeela* (Hindi); *Pakoli* (Marathi); *Ababeelo* (Gujarati); *Sarappakshi* (Malayalam).

Size: Sparrow-. **Field Characters**: A small smoky-black bird with white throat, white rump, short square tail, and long narrow wings. Sexes alike. Flying about gregariously near human habitations. **Distribution**: Patchily throughout the Indian Union from about 2000 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Five races, on details of size and coloration. **Habits**: Fond of ancient forts, ruined mosques and buildings, and dwelling houses — deserted or occupied — often in the midst of noisy cities. Flies about at

great speed almost incessantly throughout the day, hawking flies and midges, The inordinately widened gape facilities capture of tiny prey in the air. **Food**: Chiefly dipterous insects. Owing to peculiar structure of foot — all four toes directed forward — swifts cannot perch in the ordinary way, but only cling to rough surfaces. In the evenings disorderly rabbles 'ball' high up in the air in play, uttering shrill joyous twittering screams. **Nesting**: *Season* — February to September. *Nest* — a round untidy cup of feathers and straw cemented with the birds' saliva, with a slit between wall and nest for entrance. Usually in colonies, plastered in angle of walls and ceiling in verandas, porches and arched gateways of buildings. *Eggs* — 2 to 4, pure white, longish ovals. Both sexes share in building, incubation (?), and feeding young.

279. **Palm Swift** *Cypsiurus parvus* (Lichtenstein)

NN: Asian Palm Swift *Cypsiurus balasiensis* (J.E. Gray)

Plate 36

Syn. No. 707

Local names: *Tadi ababeel, Talchatta, Patta deuli* (Hindi); *Talcharai, Bathasi* (Bengal); *Shimri* (Marathi); *Tad ababeelo* (Gujarati); *Ambattan katti* (Tamil); *Panapakshi, Panahakki* (Kannada); *Panampakshi* (Malayalam); *Wehi lihiniya* (Sinhala); *Ulavara kuruvi* (Tamil, Sri Lanka).

Size: Sparrow-. **Field Characters**: A slim, plain sooty-grey bird with narrow deeply forked tail, and long slender bow-like wings. Sexes alike. Flying about gregariously over open country dotted with palmyra palms. **Distribution**: Practically throughout the Indian Union, coincident with the range of the *tad* or palmyra palm (*Borassus flabellifer*). Also Bangladesh; Sri Lanka; Myanmar. Two races based on size and coloration details. **Habits**: Inseparable from the *tad* palm, the rigid folds and furrows of whose leaves provide it with eminently suitable roosting and nesting sites. The birds spend the day hawking tiny winged insects in the vicinity of the palms, turning and twisting in the air adroitly to the accompaniment of a shrill joyous triple note *ti-ti-tee*. The deep fork in the tail is particularly noticeable when the bird wheels or banks in its flight. **Nesting**: *Season* — undefined; varying locally. *Nest* — a tiny half-saucer of feathers and vegetable down agglutinated with the bird's saliva, attached in a fold on the underside of a *tad* leaf. In the Garo and Naga Hills of NE. India, nests are sometimes built in the palm leaf thatching of inhabited huts. *Eggs* — 2 or 3, pure white, long pointed ovals.

280. **Crested Tree Swift** *Hemiprocne longipennis* (Rafinesque)

NN: *Hemiprocne coronata* (Tickell)

Plate 36

Syn. No. 709

Local names: *Dao hadi ko* (Cachari); *Tajdar ababeel* (Hindi); *Wehi lihiniya* (Sinhala); *Chotaliyo ababeelo* (Gujarati), *Sarappakshi* (Malayalam).

Size: Bulbul-. **Field Characters**: A slender swift, blue-grey above, paler and whitish below, with a prominent erectile crest on forehead, long pointed wings, and deeply forked tail. Chin and throat chestnut in male, grey in female. In overhead flight very like Palm Swift,

but larger and with more deeply forked tail. Pairs or small parties hawking midges and tiny winged insects over deciduous forest. **Distribution**: Sri Lanka; practically all over India (except the arid NW. portions) up to and along the base of the outer Himalayas into NE. India; Bangladesh; Myanmar; Thailand, etc. Local and patchy. **Habits**: Perches bolt upright on bare topmost twigs with wing-tips crossed on either side of the spiky tail feathers. **Call**: A variety of loud and harsh but not unpleasant notes uttered from perch and also on the wing, the commonest being *whit-uck, whit-uck, whit-uck,* etc. Others are reminiscent of the 'scolding' of a shikra hawk (*Accipiter badius*). **Nesting**: *Season* — December to July and possibly later, varying with locality. *Nest* — a ridiculously tiny, shallow and flimsy half saucer of scraps of bark and feathers gummed together with the bird's saliva. Attached to upper surface of a slender leafless branch 4 to 15 m up, difficult to detect from the ground. *Eggs* — a singleton, pale grey, elliptical, almost completely filling the nest.

281. **Southern Trogon** *Harpactes fasciatus* (Pennant)

ACN: Malabar Trogon

Plate 37

Syn. No. 711

Local names: *Kufni chiri* (Hindi); *Karna* (Marathi); *Kakarne hakki* (Kannada); *Theekakka* (Malayalam).

Size: Myna±; with longer tail. **Field Characters**: A brilliantly coloured arboreal forest bird with relatively long, broad and curiously truncated graduated tail. Sexes dissimilar. *Male*: Head, heck, breast sooty black. Back yellowish brown, wings barred. Brilliant crimson below, separated from black breast by a white gorget. *Female* has orange-brown underparts. Singly or widely separated pairs in evergreen or moist-deciduous forest and mixed foothills bamboo jungle. **Distribution**: Peninsular India south of Gujarat and Khandesh, chiefly the more humid tracts of the Western and Eastern Ghats, and Sri Lanka. Locally up to *c.* 1800 m. **Habits**: Perches bolt upright and motionless for long periods on tree stumps and low branches, making occasional agile sallies after winged insects. **Food**: Caterpillars, beetles, cicadas and other insects. Also some leaves and berries. **Call**: A throaty musical *cue* or *mew* usually repeated in unhurried runs of 3 or 4. **Nesting**: *Season* — overall February to June. *Nest* — an unlined natural hollow in a low tree stump in deep forest. *Eggs* — 2 to 4, roundish, glossy ivory white. Incubation by both sexes; period unrecorded.

282. **Redheaded Trogon** *Harpactes erythrocephalus* (Gould)

Plate 37

Syn. No. 713

Local names: *Suda sohagin* - male, *Kuchkuchia* - female (Bengal); *Hamesha piyara* (Hindi); *Sakvor* (Lepcha).

Size: Myna+; with longer tail. **Field Characters**: *Male*: Head, neck and breast deep crimson, occasionally with a white breast band. Back rusty brown, wing-coverts and tertiaries finely vermiculated black and white. Tail, black and white, long, broad and square ended. Below brighter and lighter crimson. *Female* differs only in having the head, neck and breast dull orange-brown. **Distribution**: Resident in the Himalayas from the Kumaon eastwards. Also NE. states: Bangladesh. **Habits**: Affects dense tropical secondary evergreen and mixed bamboo jungle. Similar in behaviour to Southern Trogon. Silent, sluggish and crepuscular. Perches upright on tree stumps and makes sorties after flying insects. **Food**: Mainly insects,

also leaves and berries. **Call**: Usually silent. A brief mewing *cue* like an oriole repeated up to ten times. **Nesting**: *Season* — April to July. *Nest* — a natural hollow in a tree trunk or a deserted woodpecker hole in dense jungle. *Eggs* — 3 or 4, spherical and buff coloured. Both sexes incubate.

283. **Pied Kingfisher** *Ceryle rudis* (Linnaeus)

Plate 37

Syn. No. 719

Local names: *Koryala, Kilkila* (Hindi); *Kingar* (Sind); *Kirkiria* (Kutch); *Kabaro kalkaliyo* (Gujarati); *Karona* (Bihar); *Chitla kilkila* (Madhya Pradesh); *Phatka machhranga, Karikata* (Bengal); *Hor kola tonch, sufaid tont, Duddru* (Kashmir); *Kallapu pilihuduwa, Gomera pilihuduwa* (Sinhala); *Meenkotti* (Tamil); *Inrui gna* (Kacha Naga); *Dao natu meberang* (Cachari); *Ngarakpi, Wakrek* (Manipuri).

Size: Between Myna and Pigeon. **Field Characters**: A speckled and barred black-and-white kingfisher with the typical, stout, dagger-shaped bill. Female similar to male but with a single black gorget broken in the middle, as against two more or less complete ones in the male. Singly or pairs, by streams and tanks, perched on rock or hovering above water. The Himalayan Pied Kingfisher (*Ceryle lugubris*), (now Crested Kingfisher *Megaceryle lugubris*) much larger and with a prominent crest, replaces this species above 800 m in the Himalayas.
Distribution: Throughout the plains of India, Bangladesh, Pakistan, Sri Lanka, Myanmar the race *leucomelanura* occurs, excepting Kerala to which is confined the much darker *travancoreensis*. **Habits**: Frequents rivers, jheels, irrigation tanks and tidal creeks. Usually seen perched on a favourite rock or stake near water, flicking up its tail and bobbing its head now and again. Its chief characteristic is its spectacular method of fishing. It hovers stationary for considerable periods, 10 m or so above the water, 'standing on its tail', and hurls itself, wings pulled in at the sides, at fish coming up within striking depth. On emergence with the quarry, the bird flies off to a convenient rock where the victim is battered before being swallowed. **Call**: A sharp, cheery *chirruk, chirruk* uttered on the wing. **Food**: Fish, tadpoles, frogs and aquatic insects. **Nesting**: *Season* — between October and May. *Nest* — a horizontal tunnel dug in a precipitous mud-bank of a stream. *Eggs* — 5 or 6, glossy white roundish ovals. Both sexes share excavation, incubation (?) and feeding the young.

284. **Small Blue Kingfisher** *Alcedo atthis* (Linnaeus)

ACN: Common Kingfisher

Plate 37

Syn. No. 722

Local names: *Chhota kilkila, Nita* or *Nika machhrala* (Hindi); *Kola tonth, Chhota tont, Tuntu* (Kashmiri); *Narian shid* (Baluchi).

Size: Sparrow+. **Field Characters**: A dapper, blue-and-green, little kingfisher, with deep rust coloured underparts, short stumpy tail and long, straight, pointed bill. Sexes alike. Singly by stream, tank or puddle; perched on an overhanging branch or flying swiftly over

the water. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three races, on size and details of coloration. **Habits**: From time to time as the bird sits scanning the water from an over-hanging branch, it bobs its head, turning it this side and that, and jerks its stub tail to the accompaniment of a subdued *click*. A sharp *chichee, chichee* is uttered as it dashes off at top speed, low over the surface, from one corner of its beat to another. Its normal method of hunting is to drop bill foremost upon its quarry from an overhanging perch. Occasionally it also hovers like Pied Kingfisher. **Food**: Small fish, tadpoles and aquatic insects. **Nesting**: *Season* — principally March to June. *Nest* — a horizontal tunnel dug into the earth-bank of a stream or ditch, 50 cm to a metre in length, ending in a widened egg chamber. *Eggs* — 5 to 7, pure white, glossy, roundish ovals. Both sexes share all the domestic duties.

285. **Blue-eared Kingfisher** *Alcedo meninting* Horsfield

Plate 37

Syn. No. 725

Size: Sparrow; length *c.* 16 cm (6 in.). **Field Characters**: Very similar to the Small Blue Kingfisher but a deeper purplish blue, white neck patches absent. Blue ear coverts *contra* ferruginous. An exclusively forest species. **Distribution**: Eastern India, West Bengal, Bihar, Orissa, Eastern Ghats, Western Ghats from Goa to W. Tamil Nadu. Also middle and south Andamans Is.; Sri Lanka. **Habits**: Confined to forests preferably evergreen or bamboo facies. Keeps singly to stretches of forest streams. **Food**: Fish and aquatic insects. **Call**: Similar to Common Kingfisher's but shriller. **Nesting**: April to August, January in Kerala. *Nest* — a horizontal tunnel dug into the bank of a forest stream, ending in a 12 cm diameter egg chamber. *Eggs* — 5 to 7, occasionally 8.

286. **Three-toed Kingfisher** *Ceyx erithacus* (Linnaeus)

ACN: Blackbacked Kingfisher

Plate 37

Syn. No. 727

Local names: *Meni ponman* (Malayalam); *Rang pilihudwwa* (Sinhala); *Sinna meenkotti* (Tamil).

Size: Sparrow-; length *c.* 13 cm (5 in.). **Field Characters**: A magnificent small kingfisher with dark purple-blue or lilac mantle, bright amethyst blue back and rump. Orange-yellow underparts and bright coral red bill and three toed legs. **Distribution**: E. and NE. India, south along the Western Ghats to Kerala and W. Tamil Nadu spreading over during the rains to breed in areas not seen otherwise. Also Andaman and Nicobars; Bangladesh; Sri Lanka. **Habits**: A habitué of shady jungle streams in moist-deciduous and evergreen forests. Keeps singly to rocky nullahs. **Food**: Small fish, insects and crustaceans. **Call**: Similar to but sharper than that of the Small Blue Kingfisher. **Nesting**: *Season* — April, May in the North, the SW. monsoon season July to September in the south. *Nest* — a horizontal tunnel about one metre long and 4 cm diameter on vertical, earthern bank of forest nullah or a roadside cutting. *Eggs* — 4 to 5, sometimes 6 or 7, white.

287. **Brownheaded Storkbilled Kingfisher**
Pelargopsis capensis (Linnaeus)

Plate 37

Syn. No. 730

Local names: *Bada Kilkila* (Hindi, M.P.); *Tunnak* (Mirshikars, Bihar); *Gurial* (Bengali); *Badami kourilla* (Hindi, Oudh); *Wattura anduwa, Maha pilihuduwa* (Sinhala); *Meenkotti, Kukuluppan* (Tamil); *Kakka ponman* (Malayalam).

Size: Pigeon-. **Field Characters**: Head brown, upper parts pale greenish blue, underparts pale yellowish brown or ochraceous. Easily distinguished from all other brightly coloured kingfishers by its large size and enormous, compressed blood-red bill. Sexes alike. Singly, or separated pairs, at forest streams. **Distribution**: Practically the entire Indian Union (excepting Rajasthan and the adjoining arid portions); Bangladesh; Sri Lanka; Myanmar. In India only the nominate race concerns us. **Habits**: Affects well-watered country, and except in Bengal and Assam where it is commonly seen on telegraph wires along the railway, keeps to shady forest streams, jungle pools, and swampy glades. Also mangrove- and *Pandanus*-lined tidal creeks. Sits on branches overhanging water, hidden by foliage. Seen chiefly when coursing up and down forest streams. Its method of hunting resembles that of the Small Blue Kingfisher, but it does not hover and plunge from the air. **Call**: A raucous, explosive chattering 'laugh' *ke-ke-ke-ke-ke-ke* (accent on first *ki*). Also utters a pleasant soliloquy *peer-peer-pur* when resting contentedly on some shady branch. **Food**: Fish, crabs, reptiles, frogs, and occasionally also young birds and eggs from nests. **Nesting**: *Season* — January to July. *Nest* — the typical horizontal tunnel of kingfishers, excavated in a steep outscoured bank of a forest stream. *Eggs* — 4 or 5, white, glossy, roundish ovals.

288. **Ruddy Kingfisher** *Halcyon coromanda* (Latham)

Plate 37

Syn. No. 733

Local name: *Dao natu gajao* (Cachari).

Size: Myna±; length *c.* 26 cm (10.5 in.). **Field Characters**: Cinnamon coloured with white rump conspicuous in flight. Bill and feet bright red. **Distribution**: Sub-Himalayan terai and duars and Eastern India, W.Bengal (Sundarbans), Andamans, Bangladesh. Subject to migratory movements as yet unknown. A specimen has been obtained in Tamil Nadu (Chengalpattu Dist.). **Habits**: Shy. Keeps singly or in pairs to dense waterside vegetation. More often heard than seen. **Food**: Fish, crabs and insects. **Call**: Same as that of Whitebreasted Kingfisher but louder and less tinny. **Nesting**: *Season* — March, April. *Nest* — a tunnel up to a 1 m long and 5 cm diameter on ravine bank. Sometimes in tree holes. *Eggs* — 5. Occasionally 6, white, glossy and oval. Both sexes incubate.

289. **Whitebreasted Kingfisher** *Halcyon smyrnensis* (Linnaeus)

ACN: Whitethroated Kingfisher

Plate 37

Syn. No. 736

Local names: *Kilkila, Kourilla* (Hindi); *Tanki* (Bihar); *Sandabuk machhranga* (Bengal); *Lali machh sorai* (Assam); *Kalkaliyo* (Gujarat); *Khandya* (Marathi); *Lakmuka, Buchegadu* (Telugu); *Vichuli, Meenkotti* (Tamil); *Ponman* (Malayalam); *Pilihuduwa* (Sinhala).

Size: Between Myna and Pigeon. **Field Characters**: A brilliant turquoise-blue kingfisher with deep chocolate-brown head, neck and underparts, a conspicuous white 'shirt front', and long, heavy, pointed red bill. A white wing-patch prominent in flight. Sexes alike. Singly, in cultivated and wooded country, both near and away from water. **Distribution**: Plains and lower hills throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Four races based on size and coloration differences. **Habits**: The most familiar of our kingfishers and also the least dependent upon water. Seen at ponds, puddles, rain-filled ditches, inundated paddy fields and near the seashore, but also in light forest at considerable distances from water. From a favourite lookout on telegraph wire or post, it pounces down on creeping prey and flies off with it to another perch near by where the victim is battered to death and swallowed. **Food**: Fish, tadpoles, lizard, grasshoppers and other insects. Occasionally also young birds and mice. **Call**: A loud cackling chiefly uttered in flight. Also has a loud, not unmusical, frequently-repeated chattering song, delivered from a tree-top or some exposed elevated perch. **Nesting**: *Season* — principally March to July. *Nest* — typical of the kingfishers; in a horizontal tunnel dug into the side of a dry nullah or earth-cutting. *Eggs* — 4 to 7, white, spherical. Both sexes excavate, incubate (?), and feed the young.

290. **Blackcapped Kingfisher** *Halcyon pileata* (Boddaert)

Plate 37

Syn. No. 739

Local names: *Ablak tanki* (Mirshikars, Bihar); *Kourilla* (Hindi, generally for all Kingfishers).

Size: Between Myna and Pigeon. Same as Whitebreasted Kingfisher. **Field Characters**: Deep cobalt blue above; pale rusty below. A velvety black cap on head separated from back by a prominent white collar on hindneck. Bright coral red bill. In flight, a large white patch in wing (primaries) conspicuous and diagnostic. Sexes alike. Singly, near the seacoast. **Distribution**: Practically the entire coastline of India south of about Bombay, also Andamans and Nicobars. Bangladesh; Sri Lanka; Myanmar. **Habits**: Affects the seacoast and tidal rivers, frequently ascending along these for considerable distance inland in forested country. Mangrove swamps bordering tidal creeks are favourite haunts. Except that it is largely dependent on the presence of water, chiefly salt or brackish, for its food — fish, crabs, etc. — its habits are quite similar to those of the more familiar whitebreasted species. **Call**: Like the Whitebreasted Kingfisher's, but somewhat shriller. **Nesting**: *Season* — May to July. *Nest* — a tunnel excavated in the earth-bank of a river or creek ending in a widened egg chamber. *Eggs* — 4 or 5, white, spherical, also very like those of Whitebreasted Kingfisher.

291. **Whitecollared Kingfisher** *Halcyon chloris* (Boddaert)

NN: Collard Kingfisher *Todirhamphus chloris* (Boddaert)

Plate 37

Syn. No. 740

Local name: *Kayal ponman* (Malayalam).

Size: Myna±; length *c.* 24 cm (9.5 in.). **Field Characters**: Crown and upper parts greenish blue; a prominent white collar merging into the white underparts. A black band from eye to eye encircling crown. White supercilium and white patch under eye. Bill and legs and feet black. Base of lower mandible pinkish or yellowish white. **Distribution**: Coastal areas of West Bengal, a race recorded from the Ratnagiri area of Maharashtra and a race each from the Andaman and Nicobar islands. Common. Bangladesh. **Habits**: Affects mangrove swamps and coastal cultivations. Often seen far from water. **Food**: Crabs, mud skipper fish, insects. **Call**: A harsh, unmusical *krerk, krerk, krerk*, very vocal in the morning and in the breeding season. **Nesting**: *Season* — April and May. *Nest* — hole in tree trunk or one excavated in a carton or mud nest of tree ants or termite mound. *Eggs* — 3 or 4, white and oval. Both sexes share parental duties.

292. **Chestnutheaded Bee-eater** *Merops leschenaulti* Vieillot

Plate 38

Syn. No. 744

Local names: *Lalsir patringa* (Hindi); *Kurumini kurulla* (Sinhala); *Kattalan kurivi, Panchankam* (Tamil); *Veli tatta* (Malayalam).

Size: Bulbul-. **Field Characters**: Similar in general effect to Bluetailed Bee-eater, but central pin feathers projecting only slightly beyond tail. Head and upper back bright chestnut; chin and throat yellow. Sexes alike. Small flocks on exposed branches of trees in wooded country. **Distribution**: The Western Ghats country south of about Belgaum; the Himalayan terai from Dehra Dun to NE. India; Orissa. Bangladesh; Sri Lanka; Myanmar. Rare or absent in central and eastern peninsular India. Andaman Is. **Habits**: Occurs patchily and locally in fairly well-wooded country intermediate between the moist-evergreen and the dry-deciduous types. Prefers foothills up to 1000 m elevation. Large gatherings collect at nightly roosts in favourite leafy trees. Food and general habits similar to Small Green Bee-eater. Voice and notes closely resemble those of the Bluetailed Bee-eater. **Nesting**: *Season* — overall February to May, varying locally. *Nest* — tunnels in earth-cuttings and sandy soil similar to those of the other bee-eaters, commonly in banks of streams in forested country. Singly or in small colonies. *Eggs* — 5 to 6, glossy, pure white, roundish ovals.

293. **Bluecheeked Bee-eater** *Merops superciliosus* Linnaeus

NN: *Merops persicus* Pallas

Plate 38

Syn. No. 747

Local names: *Wado traklo* (Sind); *Bada patringa* (Hindi); *Haur murgh* (= rain bird, Brahui); *Kuruu* (Baluchi); *Bada hajamda* (Kutch); *Moto patrangiyo* (Gujarati).

Size: Bulbul±. **Field Characters**: Readily distinguished from the common and familiar small green bee-eater by larger size, pale chestnut patch on throat, broad black streak from base of bill through eye to ear-coverts with a conspicuous white and blue-green cheek-

patch below it. Rump and tail green. Sexes alike. **Distribution**: Resident in the arid northwestern parts of the subcontinent with numbers augmented by summer migrants which arrive either to breed or on passage in April-May and again on return passage in September-October. **Habits**: Affects the neighbourhood of jheels, tanks and sandy seashores. Behaviour similar to other bee-eaters'. **Food**: Dragonflies, bees, wasps, etc. **Call**: A musical interrogative repeated, *tetew*. Also used as contact call during night migration. **Nesting**: *Season* — April to August. *Nest* — burrows in ground, breeds colonially. *Eggs* — 4 or 5, white. Both sexes share the parental duties.

294. **Bluetailed Bee-eater** *Merops philippinus* Linnaeus

Plate 38

Syn. No. 748

Local names: *Bada patringa* (Hindi); *Dorla* (Mirshikars, Bihar); *Jeea khate* (Assamese); *Komu passeriki* (Telugu); *Velitatta* (Malayalam); *Shale* (Nicobarese); *Kurumini kurulla, Natthal kurulla, Ranilla, Ambeya* (Sinhala); *Kuttalan kuruvi, Panchankam* (Tamil).

Size: Bulbul. **Field Characters**: Distinguished from Small Green Bee-eater by larger size, black stripe through the eyes, deep chestnut throat and breast, blue rump and tail. Sexes alike. Small flocks in open country, especially about tanks and jheels. **Distribution**: Patchily throughout the Indian Union from about 1000 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. Winter visitor south of *c.* 20°N. lat., including Andamans and Nicobars. **Habits**: Inhabits more or less the same type of country as Small Green Bee-eater but on the whole definitely prefers better-wooded tracts and the neighbourhood of jheels and streams. **Call**: *te-tew?, te-tew?* deeper and readily distinguishable from that of the Small Bee-eater. In the distance these calls sound rather like the *pettigrew* notes of the Redvented Bulbul. In food and general habits there is little difference between the several bee-eaters. **Nesting**: *Season* — overall March to June. *Nest* — a tunnel in a river-bank or sandy mound as of Small Green Bee-eater, usually in colonies, occasionally in association with Bank Mynas. *Eggs* — 5 to 7, pure white roundish ovals. Both sexes share in excavating nest-tunnel, incubation (?) and feeding young.

295. **Small Green Bee-eater** *Merops orientalis* Latham

ACN: Little Green Bee-eater

Plate 38

Syn. No. 750

Local names: *Patringa, Harrial* (Hindi); *Banspati* (Bengal); *Tai lingi, Veda raghu, Patur, Pateri* (Marathi); *Nano patrangiyo* (Gujarati); *Chhota hajamda* (Kutch); *Chinna passeriki* (Telugu); *Veli tatta* (Malayalam).

Size: Sparrow. **Field Characters**: A dainty grass-green bird tinged with reddish brown on head and neck. Central pair of tail feathers prolonged into blunt pins. Slender, long, slightly curved bill. Conspicuous black 'necklace'. Sexes alike. Pairs, or parties, in open country on telegraph wires, fence-posts, etc. **Distribution**: Throughout the Indian Union from about 1000 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. Four races, mainly on depth of coloration. **Habits**: Inhabits open country — the neighbourhood of cultivation, forest clearings, fallow land, gardens, golf links, etc. Also

partial to the zone above sandy beach along the seacoast. Launches aerial sallies after bees, etc., snapping them up in its bill and circling back gracefully on outstretched motionless wings to the perch, where the quarry is battered to death and swallowed. **Food**: Insects, chiefly diptera and hymenoptera. **Call**: A pleasant jingling *tit, tit* or trilly *tree-tree-tree* constantly uttered on the wing or at rest. Large numbers collect to roost in favourite leafy trees, and much noise and flying around in rabbles precedes retirement for the night. **Nesting**: *Season* — principally February to May. *Nest* — a horizontal or oblique tunnel ending in a widened egg chamber, dug in the side of an earth-cutting, borrow-pit or in uneven sandy ground. *Eggs* — 4 to 7, pure white, roundish ovals. Both sexes share in excavating nest-tunnel and feeding young.

296. **Bluebearded Bee-eater** *Nyctyornis athertoni* (Jerdine & Selby)

Plate 38

Syn. No. 753

Local names: *Bukay chera* (Nepal); *Sang Rhyok* (Lepcha); *Dao hukuru* (Cachari); *Kattu velitatta* (Malayalam).

Size: Pigeon±; slimmer; length *c.* 36 mm (14 in.). **Field Characters**: Bill black, long, slender and curved. Grass-green with pale greenish blue forehead. Feathers at the middle of the throat and upper breast light blue, lengthened into a beard conspicuous in profile while calling. Underparts reddish buff broadly streaked with green. Tail square without projecting pin feathers. **Distribution**: Resident from Dehra Dun (terai) eastwards, NE. states, W. Bengal, Bihar, Orissa and Madhya Pradesh; the E. and W. Ghats south of Karnataka, Tamil Nadu and Kerala. Bangladesh, but not Pakistan and Sri Lanka. Local and scattered. **Habits**: Usually seen in pairs in secondary evergreen, moist-deciduous forests in broken foothills country. Sluggish, sallying after insects from a look out post in a leafy tree top. **Food**: Insects. Occasionally honey from flowers of *Erythrina* and *Salmalia*. **Call**: Guttural croaks *korr*; *korr* not particularly loud but heard over considerable distance. **Nesting**: *Season* — February to August. *Nest* — horizontal tunnel 5 to 6 cm in diameter and up to 3 m long bored into precipitous banks of forest ravine, streams, roadside cuttings. *Eggs* — 4 to 6, pure white. Both sexes share parental duties.

297. **European Roller** *Coracias garrulus* Linnaeus

Plate 38

Syn. No. 754

Local names: *Nila krash* (Kashmir); *Sabskarask* (Brahui); *Kashmiri nilkant* (Gujarat).

Size: Pigeon. **Field Characters**: A brightly coloured blue and brownish bird with large head and stout bill. Easily separated from the Indian Roller by the blue-black (as against the banded dark-and-light blue) flight feathers and by its uniformly light blue breast and underparts. Sexes alike. **Distribution**: Breeds in Kashmir and migrates to Arabia and Africa passing through Rajasthan and North Gujarat. A straggler up to Seoni (M.P.) in the east and Maharashtra and Karwar, Ranebennur in Karnataka (*c.* 14°37'N. lat.) in the south. **Habits**: Similar to those of the Indian Roller. On migration travels during day, individually and in a steady stream spread over a wide front. **Food**: Beetles and other large insects. Also lizards and frogs. **Call**: Harsh grating screams usually uttered during the aerial display during the breeding season. **Nesting**: *Season* — May to September. *Nest* — a natural tree hollow. *Eggs* — 5 to 6, pure white. Both sexes share parental duties.

298. **Roller** or **Blue Jay** *Coracias benghalensis* (Linnaeus)

Plate 38

Syn. No. 756

Local names: *Tas, Chash* (Marathi); *Pala pitta* (Telugu); *Kattu kadei, Pal kuriwi* (Tamil); *Panamkakka* (Malayalam); *Dunkawa, Dunkawuluwa, Dumbona* (Sinhala); *Panankadai, Kottai-kili* (Tamil — Sri Lanka).

Size: Pigeon. **Field Characters**: A striking Oxford-and-Cambridge-blue bird, with biggish head, heavy black bill, rufous-brown breast, and pale blue abdomen and under tail. The dark and pale blue portions of the wings show up as brilliant bands in flight. Sexes alike. Singly perched on telegraph wires, etc., preferably in open cultivated country. **Distribution**: Practically throughout the Indian Union from the Himalayan foothills south; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and partial local migrant. Three races on details of size and coloration. **Habits**: Affects open cultivated country and light deciduous forest. From a lookout on a telegraph wire or other point of vantage it pounces upon some large insect, frog or lizard on the ground, returning with it either to the same perch or flying leisurely across to another near by. Here the quarry is battered to death and swallowed. Highly beneficial to agriculture since it destroys vast quantities of injurious insects. Has a variety of loud, raucous croaks and chuckles. Indulges in a spectacular courtship display, somersaulting and nose-diving in the air to the accompaniment of harsh, grating screams. **Nesting**: *Season* — chiefly March to July. *Nest* — a collection of straw, rags and rubbish in a natural tree-hollow at moderate heights; sometimes in a hole in wall of building. *Eggs* — 4 or 5, glossy white, roundish ovals.

299. **Broadbilled Roller** *Eurystomus orientalis* (Linnaeus)

ACN: Dollar Bird

Plate 38

Syn. No. 758

Local names: *Tak rel vong* (Lepcha); *Dollar Bird* (English, substantive).

Size: Pigeon; length 31 cm (12 in.). **Field Characters**: Dark greenish brown and purple blue black roller with blackish head and large pale blue round patch on wing conspicuous in flight. **Distribution**: Resident in the Indian Union and Sri Lanka. Range disjunct. Race *calonyx* in the Himalayan foothills and adjacent plains from Ambala eastwards to Arunachal Pradesh and thence south to the NE. Indian states. Race *laetior* with darker head and brighter blue below ranges from about Kodagu Dt. in Karnataka south to Kerala and W.Tamil Nadu. *Gigas* is found in the Andamans, and *irisi* till lately believed to be extinct is resident in the wet-evergreen forests of SW.Sri Lanka, but rare. **Habits**: Occurs in heavy secondary evergreen jungle and clearings at edges of forests. **Food**: Mainly insects but small vertebrates also taken. **Call**: Usually silent but occasionally utters a raucous *chack, chack*. **Nesting**: *Season* — March to May. *Nest* — an unlined natural hollow or barbet or woodpecker hole in a lofty tree in or on a forest clearing. Same hole often used in successive years. *Eggs* — 3 or 4, white, spherical. Both sexes incubate.

300. **Hoopoe** *Upupa epops* Linnaeus

ACN: Eurasian Hoopoe

Plate 38

Syn. No. 765

Local names: *Hudhud* (Hindi, Marathi); *Hudhud* or *Ghanti tankno* (Gujarati); *Konda pitta, Kireetam pitta, Kukudu guwa* (Telugu); *Poruwa kurulla* (Sinhala); *Chaval kuruvi* (Tamil); *Uppooppan* (Malayalam).

Size: Myna±. **Field Characters**: A fawn coloured bird with black and white zebra markings on back, wings and tail. A conspicuous fan-shaped crest, and long, slender, gently curved bill. Sexes alike. Singly or pairs, usually on the ground in lightly-wooded country. **Distribution**: Practically throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and also locally migratory. Three races chiefly concern us, differentiated on details of size and coloration. **Habits**: Affects open country, plains and hills up to about 2000 m elevation. Fond of lawns, gardens and groves in and around villages and towns. Walks and runs with a quail-like but waddling gait, probing into the soil for food with bill partly open like forceps. When digging, the crest is folded back and projects in a point behind the head. It is flicked open and erected fanwise from time to time. **Call**: A soft, musical, penetrating, *hoo-po* or *hoo-po-po* repeated in runs, often intermittently for 10 minutes at a stretch. **Food**: Insects, grubs and pupae; hence is beneficial to agriculture. **Nesting**: *Season* — principally February to May. *Nest* — a natural tree-hollow or hole in wall or ceiling of a building, untidily lined with straw, rags and rubbish. *Eggs* — 5 or 6, white. The nest is notorious for its filthiness and stench. Both sexes share in feeding the young.

301. **Common Grey Hornbill** *Tockus birostris* (Scopoli)

NN: Indian Grey Hornbill *Ocyceros birostris* (Scopoli)

Plate 39

Syn. No. 767

Local names: *Dhanmar, Dhand, Dhanel, Lamdar, Chalotra, Dhanesh* (Hindi); *Selagilli* (Hindi, Saugar, M.P.); *Puttial dhanesh* (Bengali); *Rundu mukkula guwa, Supanati, Kommu kasiri* (Telugu); *Moonu mukkula kaka, Irawakke* (Tamil); *Chilotro* (Gujarati); *Bhinas* (Marathi).

Size: Pariah Kite. **Field Characters**: A clumsy brownish grey bird with an enormous black-and-white curved bill surmounted by a peculiar protuberance or casque, and long graduated tail. In female the casque is smaller. Small parties, in lightly-wooded country with groves of ancient trees. **Distribution**: Throughout the Indian Union excepting Malabar, parts of Rajasthan, and Assam. Pakistan. Absent in Bangladesh; Sri Lanka; Myanmar. **Habits**: Arboreal. Commonly met with among fig-laden banyan and peepul trees along roadsides or near villages, feeding in company with green pigeons and other frugivorous birds, or flying across from one tree to another in follow-my-leader fashion. Flight typical of the hornbills, laboured, undulating and noisy — a few rapid wing strokes followed by a dipping glide with the primaries upturned. **Call**: A loud, cackling *k-k-k-kae* and a variety of squealing and chattering conversational notes. **Food**: Mainly fruit, but also large insects, lizards, young mice, etc. **Nesting**: *Season* — principally March to June. *Nest* — a natural tree-hollow, walled up with the bird's droppings after the female has settled herself within, leaving only a narrow slit through which the male feeds her during the self-imposed confinement. The wall is broken down after the young hatch out, and both parents forage for the young thereafter. *Eggs* — 2 or 3, dull, glossless white.

302. **Malabar Grey Hornbill** *Tockus griseus* (Latham)

NN: *Ocyceros grisius* (Latham)

Plate 39

Syn. No. 768

Local names: *Kaldal hakki* (Kannada); *Kozhi vezhambal* (Malayalam).

Size: Kite±. **Field Characters**: A brownish slaty grey hornbill *without* any casque on the bill. Whitish streaks on head, crown, throat and breast. White nasal plumes and broad supercilium. Wing quills black. Some primaries white tipped. Tail glossy black, white-tipped except for the central pair of rectrices. Sexes alike. **Distribution**: Resident in the heavy rainfall Western Ghats southwards from about Khandala near Bombay to Karnataka, W.Tamil Nadu and Kerala; from plains to *c*. 1600 m. **Habits**: Affects open evergreen and moist-deciduous forests abounding in *Ficus* trees. Keeps in pairs or small flocks flying from tree to tree in follow-my-leader fashion. **Food**: *Ficus* figs, fruits, insects and small animals. **Call**: Shrill squeals and raucous cackling like an agitated domestic chicken. **Nesting**: *Season* — January to early April. *Nest* — a tree hollow. *Eggs* — 3 or 4. Breeding biology as in other hornbills.

303. **Rufousnecked Hornbill** *Aceros nipalensis* (Hodgson)

Plate 39

Syn. No. 771

Local names: *Dao yuny gajao* (Cachari); *Kolep* (Lepcha).

Size: Vulture; length 122 cm (48 in.). **Field Characters**: Male with bushy crest, rufous on neck and breast, maroon on abdomen, darkening towards vent. Black glossed with green above. Wings white tipped; terminal half of tail white. Cheek, chin and upper throat naked and bright scarlet. Naked patch round eye blue. Bill heavy, horn shaped, yellow without casque, upper mandible with vertical black ridges. Female all black except for white wing-tips and white terminal half of tail. **Distribution**: Himalayan foothills of eastern India from Nepal eastwards to Arunachal Pradesh. Nagaland, Manipur, Mizoram; Bangladesh; in tall evergreen forest. **Habits**: Main arboreal and frugivorous. Sometimes descends to the ground to pick up fallen fruit. Keeps in pairs or small parties. Flight has a noisy flapping, sailing, dipping pattern. **Food**: Large drupes and berries swallowed whole. **Call**: A variety of roars, croaks and cackles. Both male and female duet with a call reminiscent of an axe striking wood. **Nesting**: *Season* — April-May. *Nest* — the usual hornbill nest in the hollow of a lofty tree. *Eggs* — 1 or 2. Nesting behaviour as in other hornbills.

304. **Wreathed Hornbill** *Rhyticeros undulatus* (Shaw)

NN: *Aceros undulatus* (Shaw)

Plate 39

Syn. No. 772

Local names: *Mah do la* (Assamese); *Dao rai* (Cachari).

Size: Vulture±. Length male *c*. 114 cm (45 in.); female *c*. 98 cm (38 in.). **Field Characters**: Body black with forehead, crown and nape deep chestnut. Tail entirely white. Bill yellow with transverse ridges with reddish furrows. Sides of head and neck buffy white. Throat naked with a bright yellow patch in the middle. Female uniform black with white tail.

Distribution: North Bengal eastwards to Arunachal Pradesh and south of the Brahmaputra to Manipur, Tripura and Bangladesh. From plains level to *c.* 2000 m in tropical evergreen biotope. **Habits**: Arboreal and frugivorous. Seen in pairs or small parties. Flight noisy and heard at some distance. Flocking where food is plentiful. Flight has a sailing, dipping pattern. Roost at night in numbers in selected roosting sites. **Food**: Large drupes, figs and berries and small vertebrates. **Call**: Less noisy than other hornbills. The male utters a raucous grunt with drooping tail and bill jerked upwards at each call. **Nesting**: *Season* — April-May. *Nest* — a natural hollow at great height in a lofty tree. Breeding biology as in other hornbills.

305. **Indian Pied Hornbill** *Anthracoceros malabaricus* (Gmelin)

NN: Oriental Pied Hornbill *Anthracoceros albirostris* Oates

Plate 39

Syn. No. 774

Local names: *Kao dhanesh* (Assamese).

Size: Vulture-. **Field Characters**: A large black and white hornbill with massive yellow and black bill with a high ridge-like casque ending in front in a single point. Separated from the identical Malabar Pied Hornbill (*A. coronatus*) by white-tipped black outer tail feathers. Neck black, white below. **Distribution**: Resident. Himalayas from Haryana east to Arunachal Pradesh and NE. India, south to eastern Madhya Pradesh and the E. Ghats. Bangladesh. **Habits**: Affects open forests in moist-deciduous, evergreen forests and large groves of trees. Arboreal and largely frugivorous. Keeps in noisy flocks of 4 to 10 birds. Occasionally feeds on the ground. Said to be fond of dust bathing. **Food**: Fruits, small birds, reptiles, fish, termites, etc. **Call**: A variety of squeals and cackles. **Nesting**: *Season* — April-May. Nesting pattern as in other Hornbills.

306. **Malabar Pied Hornbill** *Anthracoceros coronatus* (Boddaert)

Plate 39

Syn. No. 775

Local names: *Dhan chiri* (Hindi); *Suleimani murghi* (Deccani); *Dhanesh* (U.P.); *Bagma dhanesh* (Bengal); *Kuchla kha* (Orissa); *Wayera* (Marathi); *Kanari* (Konkan); *Peshta gonda* (Gond); *Poruwa kandetta* (Sinhala); *Irattai chondu kuruvi* (Tamil); *Vezhambal* (Malayalam).

Size: Kite. **Field Characters**: A heavy-billed arboreal bird with black neck, back, and wings, white tips to the flight feathers, and white underparts. Tail longish, with outer feathers *all* white. A ponderous wax-yellow and black horn-shaped bill surmounted by a casque sharply ridged along top, flat on sides, ending in a point. *Female* differs only in colour details of bare parts. Noisy flocks in fruit-laden trees in well-wooded deciduous country. **Distribution**: Sri Lanka; south and central India; north to southeastern U.P.; Bihar; and Orissa. **Habits**: Sociable, mainly frugivorous. Also eats lizards, mice, and baby birds. *Flight*: a few noisy flaps followed by a glide, with wing-tips upturned. **Call**: A variety of loud raucous cackling and inane screams reminiscent of the protestations of a *dak* bungalow *murghi* seized by the cook, and also the yelps of a smacked puppy! **Nesting**: *Season* — March to June. Little recorded, but presumably of the same general pattern as in other hornbills. *Eggs* — 2 to 4, white, usual wood-stained brownish.

307. **Great Pied Hornbill** *Buceros bicornis* Linnaeus

ACN: Great Hornbill

Plate 39

Syn. No. 776

Local names: *Homrai* (Nepal); *Banrao* (Hindi, Kumaon); *Kugrong, Kudong* (Lepcha); *Garuda* (Kannada); *Garud* (Marathi); *Malamozakki* (= 'mountain-shaking'), *Vezhambal, Komban vezhambal* (Malayalam); *Raj dhanesh* (Bengal); *Raj dhanesh, Hivang* (Assam); *Dao yung* (Cachar); *Inrui go* (Kacha Naga).

Size: Vulture. **Field Characters**: A large black-and-white hornbill with a massive horn shaped yellow-and-black bill with a large concave topped casque, U-shaped when viewed from front. Face, back, underparts and wings black. Wings with two white bars. Neck, lower abdomen, tail-coverts and tail white. Tail with a black sub-terminal band. Feathers of neck and wing bands often tinged yellow from being smeared with exudation of tail gland. **Distribution**: Resident and locally migratory from about Khandala near Bombay to the extreme southern tip of the Western Ghats. Himalayas from Kumaon eastwards to Arunachal Pradesh and hills south of the Brahmaputra. Bangladesh. **Habits**: Affects evergreen and moist-deciduous forest from plains to 1500 m in the W. Ghats; 2000 m in the Himalayas. Arboreal, occasionally descends to the ground. In pairs or small parties, large gatherings at abundantly fruiting trees. Often roost communally in congregations of over 100. Covers a large feeding circuit. Flight laboured and noisy, heard at considerable distances. **Food**: Chiefly wild figs, drupes and fruits and animals such as lizards, snakes, nestlings, etc. **Call**: Hoarse, grunts, barks and roars. A distinctive very loud reverberating *tok* repeated at regular intervals. **Nesting**: *Season* — February to April. *Nest* — in the hollow of a giant forest tree. Breeding as in other hornbills. *Eggs* — usually 2. The species is greatly endangered by loss of habitat and nesting trees. A fully protected species.

308. **Himalayan Great Barbet** *Megalaima virens* (Boddaert)

ACN: Great Barbet

Plate 41

Syn. No. 777

Local names: *Traiho* (Hindi, Himachal Pradesh); *Mewli* (Mussooree); *Nyahul, Newal* (Nepal); *Kun nyong* (Lepcha).

Size: Myna+; length **c**. 33 cm (13 in.). **Field Characters**: A brightly coloured barbet with a heavy yellow bill with bristles at its base. Maroon-brown with violet blue-black head. Olive-brown, blue, and yellow below with a bright scarlet patch under the tail. Sexes alike. **Distribution**: A common resident species of the moist forests of Himalayas from 1000 to 3000 m; lower in winter. From Murree to Arunachal Pradesh, hills south of the Brahmaputra. Pakistan; Bangladesh. **Habits**: Seen singly or in small feeding parties. Congregations of 30 or more in large fruiting trees. In spite of gaudy coloration difficult to see amongst foliage especially in winter when it is silent. **Food**: Chiefly fruits. Insects also taken. **Call**: A distinct *piao* repeated monotonously, throughout the day in irregular choruses by several birds, which intensifies at sunset. Duetting is common. **Nesting**: *Season* — April to July. *Nest* — an unlined hole in the trunk of a tree. *Eggs* — 3 or 4, whitish. Both sexes share parental duties.

309. **Large Green Barbet** *Megalaima zeylanica* (Gmelin)

ACN: Brownheaded Barbet

Plate 41

Syn. No. 780

Local names: *Bada basanta* (Hindi and Bengali); *Fokare pakhi* (Bengal); *Kutumra* (Deccan); *Kudrunga, Gumma* (M.P.); *Kotur* (U.P.); *Sunterar* (Bihar); *Kuturga* (Marathi).

Size: Myna+. **Field Characters**: A chubby, heavy-billed grass-green, arboreal bird, with head, neck, upper back and breast brown, streaked with white, lower breast and abdomen green; bluish under tail-coverts, conspicuous orange bare patch around eye extending to base of bill. Sexes alike. **Distribution**: Three races occur in the Indian Union and Sri Lanka; in moist- and dry-deciduous forests and adjoining built up areas. Eastern limit of distribution, north W. Bengal. **Habits**: Arboreal and frugivorous. Usually seen singly but congregations of 20 or more seen on fruit-laden banyan or peepul trees. **Food**: Ficus figs and other drupes and berries. Occasionally damages fruits in kitchen gardens. Also flower petals and flower nectar. Occasionally insects. **Call**: A monotonous *kor-r-r-kutroo, kutroo, kutroo*, almost incessant in the summer when the call of one starts off others in the area and the chorus continues interminably. Somewhat silent in winter. **Nesting**: *Season* — February to June. *Nest* — a hole excavated by the bird in a rotten branch 2 to 15 m from ground level. *Eggs* — normally 3, occasionally 2 to 4. Both sexes share parental duties.

310. **Lineated Barbet** *Megalaima lineata* (Vieillot)

Plate 41

Syn. No. 783

Local names: *Kudurta, Khotoor* (Nepal); *Dang kun nyong* (Lepcha); *Dao tukra* (Cachari); *Inruikuru* (Kacha Naga).

Size: Myna+; length *c*. 28 cm (11 in.). **Field Characters**: Very similar to the Large Green Barbet which it replaces in eastern India. Much more broadly pale streaked and the yellow eye patch much smaller, less conspicuous and *does not extend to gape*. Sexes alike. **Distribution**: From Kumaon to Arunachal Pradesh hills south of the Brahmaputra and N. Orissa hills. Bangladesh. In moist-deciduous biotopes well-wooded gardens, etc. **Habits**: Similar to those of the Large Green Barbet. **Food**: Frugivorous as other Barbets but also takes insects and small vertebrates, such as lizards and frogs. **Call**: Similar to Large Green Barbet but mellower. **Nesting**: *Season* — end March to mid-June. *Nest* — a hole dug in a tree branch between 3 and 12 metres from ground level. *Eggs* — 2 to 4, white. Both sexes share parental duties.

311. **Small Green Barbet** *Megalaima viridis* (Boddaert)

ACN: Whitecheeked Barbet

Plate 41

Syn. No. 785

Local name: *Chhota basantha* (Hindi).

Size: Myna±; length *c*. 23 cm (9 in.) **Field Characters**: Similar to the Large Green Barbet but easily distinguished from it by the white cheek stripe. Generally grass green; crown and nape dark brown with a blackish band running backward from eye. A broad white

cheek stripe including the ear-coverts. Chin and throat whitish. Breast whitish streaked with brown. Naked eye patch blackish. Sexes alike. **Distribution**: Resident and common in the evergreen and moist-deciduous forests of the hills and plains of southern India from the Narmada southwards. Also frequents gardens and groves near human habitations adjoining forests. **Habits**: Usually seen in pairs or small parties. Congregates on fruit-laden banyan or peepul trees in some numbers but quarrelsome in such situations. **Food**: Fruits, mainly wild figs, but eats cultivated fruits, especially coffee berries. Also flower nectar from *Erythrina,* etc. Takes flying termites in mid-air. **Call**: Confusingly similar to the Large Green Barbet's but on a higher key. Particularly noisy during the breeding season. Calling incessantly from dawn to dusk and often into moonlit nights. **Nesting**: *Season* — December to June. *Nest* — similar to other barbets', a hole in a rotten branch at 2 to 10 m height from ground. *Eggs* — usually 3, occasionally 2 to 4, white. Both sexes share parental duties.

312. **Bluethroated Barbet** *Megalaima asiatica* (Latham)

Plate 41

Syn. No. 788

Local names: *Nilkant basanth* (Hindi).

Size: Myna±. **Field Characters**: A gaudily coloured dumpy green arboreal bird with a heavy conical bill. Forehead and crown crimson with transverse black band above the eyes. Sides of head, chin, throat and foreneck pale blue. A large crimson spot on each side of the neck and a crimson speck on either side at base of lower mandible. Sexes alike. Singly, or parties, in leafy fruiting trees. **Distribution**: Lower Himalayas from Rawalpindi east to Arunachal Pradesh, south to Manipur and lower Bengal; *c.* 2000 m Pakistan; Bangladesh; Myanmar. **Habits**: Arboreal. Affects wooded country, groves and gardens even in populous cities, e.g. Calcutta. **Food**: Fruits and berries, figs of the various species of *Ficus* being special favourites. Like other Barbets, frequently catches flying termites in the air. **Call**: Similar to that of the Large Green Barbet, perhaps somewhat higher pitched, reiterated at all times of the day. Flight noisy and dipping, a few rapid wing beats followed by a short pause. **Nesting**: *Season* — overall March to June. *Nest* — a hole in dead tree-trunk or branch excavated by the birds, 3 to 7½ m up. *Eggs* — 3 or 4, glossless white. Both sexes share all domestic duties.

313. **Crimsonthroated Barbet** *Megalaima rubricapilla* (Gmelin)

ACN: Crimsonfronted Barbet

Plate 40

Syn. No. 790

Local names: *Tokoji* (Telugu); *Alekili* (Malayalam).

Size: Sparrow+. **Field Characters**: A little grass-green barbet similar to the Coppersmith but with forecrown, forehead, chin, throat and upperbreast crimson, the last streaked with black. Crimson patch below eye and on cheek. Sexes alike. **Distribution**: Resident, locally common. Western Ghats, Goa southwards to Kerala and W.Tamil Nadu in evergreen forest up to 1200 m. Sri Lanka. **Habits**: Exclusive to evergreen biotope. Habits similar to Coppersmith's. Gregarious in non-breeding season. Numerous in coffee estates having *Ficus* as shade trees. **Food**: Wild figs, drupes and berries. **Call**: Similar to that of Coppersmith but at a faster tempo. **Nesting**: *Season* — January to March. *Nest* — a hole in a tree branch. *Eggs* — 2. Incubation by both sexes.

314. **Crimsonbreasted Barbet** or **Coppersmith**

Megalaima haemacephala (Muller)

ACN: Coppersmith Barbet

Plate 40

Syn. No. 792

Local names: *Katphora, Tambayat, Basanth lisora, Chota basanth* (Hindi); *Chota basanth bauri, Bhagirath* (Bengal); *Phouk basanth* (Bihar); *Basanth sordi* (Assam); *Hetuluka* (Nowgong, Assam); *Juktuk, Sonar, Tambat* (Marathi); *Tuktukiyo* (Gujarati); *Tokoji, Kamsali pitta* (Telugu); *Chempukotti* (Malayalam); *Mal kottoruwa* (Sinhala); *Sinna kukuravan* (Tamil).

Size: Sparrow+; more dumpy. **Field Characters**: A heavy-billed grass-green Barbet with crimson breast and forehead, yellow throat and green streaked yellowish underparts. Short truncated tail, distinctly triangular in flight silhouette. Sexes alike. Singly, or loose parties, on banyan and peepul trees in fruit. **Distribution**: The greater part of the Indian Union from about 1000 m in the Himalayas south; Bangladesh; Pakistan; Sri Lanka; Myanmar. Replaced in the humid forest tracts of SW. India by the allied Crimsonthroated species *M. rubricapilla*. **Habits**: Arboreal. Found commonly wherever there are fruiting trees, especially the various species of wild fig, be it in outlying forest or within a noisy city. **Call**: A familiar, loud, monotonous ringing *tuk, tuk* repeated every second or two in long runs throughout the day, reminiscent of a distant coppersmith hammering on his metal. **Food**: Fruits and berries; especially fond of banyan and peepul figs. Sometimes eats winged termites captured by ungainly flycatcher-like sallies. **Nesting**: *Season* — January to June. *Nest* — a hole excavated in a snag of a dead softwood branch such as of the Coral or Drumstick trees, at moderate heights. When in a horizontal branch, the entrance hole is on the underside. *Eggs* — 3, glossless white. Both sexes share all domestic duties.

315. **Wryneck** *Jynx torquilla* Linnaeus

ACN: Eurasian Wryneck

Plate 40

Syn. No. 796

Local names: *Gardan eyengtha* (Hindi); *Meda nulingadu* (Telugu).

Size: Sparrow+. **Field Characters**: Silvery grey-brown above, streaked and vermiculated with black and fulvous; whitish below with black arrowhead markings producing a finely cross-barred pattern. Deceptively sparrow-like, particularly in flight. On a flashing glimpse, also easily mistaken for Great Reed Warbler in the appropriate habitat. Sexes alike. Singly in stunted thorn jungle and open deciduous country; not abundant but fairly common though often escaping notice by its unobtrusive behaviour. **Distribution**: Breeds in Kashmir; winter visitor to Bangladesh; Pakistan and practically the entire Indian Union excepting the heavy rainfall evergreen forest tracts. Three slightly differing races. **Habits**: Although closely related to woodpeckers in appearance and behaviour rather sparrow-like. Clings to stems and branches of trees tapping on the bark like woodpecker, as well as perches crosswise in the typical passerine manner. Hops about on ground with tail raised like Indian Robin, picking up ants and other insects which comprise its diet. Has a comical way of stretching neck and bill upwards and twisting its head slowly from side to side, especially when surprised within its nest-hole or handled — evidently a threatening gesture. **Call**: A shrill,

quick-repeated nasal *chewn, chewn, chewn* (4 or 5 times at about 3 per second) which betrays the bird's presence in a locality oftener than it is seen. **Nesting**: *Season* — in Kashmir chiefly May and June. *Nest* — a hollow in a rotten branch or tree stem, natural or a disused woodpecker boring, at varying heights. *Eggs* — 6 to 8, white, unglossed oval, often somewhat pointed at the smaller end.

316. **Speckled Piculet** *Picumnus innominatus* Burton

Plate 40

Syn. No. 798

Local name: *Maramkothi* (Malayalam).

Size: Sparrow-; length *c.* 10 cm (4 in.). **Field Characters**: A petite woodpecker with soft, rounded black and white tail. The Himalayan race *innominatus* bright yellow-olive above with black and orange forecrown; a broad blackish olive band behind eye and onto neck bordered conspicuously by white bands. Below yellowish white with bold black spots. The race *malayorum* duller generally but more heavily spotted on belly. **Distribution**: Most of the Indian Union and NE. Indian states, up to 2000 m. Pakistan; Bangladesh. 2 races. **Habits**: Seen singly or in pairs in moist-deciduous and semi-evergreen biotope. A detached outrider of the restless itinerant hunting parties of mixed flocks of small birds. **Food**: Mainly ants in all stages. **Call**: A sharp *spit spit* and a persistent mechanical drumming *brr-rr* on bamboo or dead snag. **Nesting**: *Season* — April and May. *Nest* — a hole drilled in a bamboo or rotten branch often used for more than one season. Opening about *c.* 2.5 cm in diameter. *Eggs* — 3 or 4, white. Both sexes share parental duties.

317. **Rufous Woodpecker** *Micropternus brachyurus* (Vieillot)

NN: *Celeus brachyurus* (Vieillot)

Plate 41

Syn. No. 803

Local names: *Chempan Maramkothi* (Malayalam); *Dumburu kerella* (Sinhala); *Maramkothi, Thachchan kuruvi* (Tamil).

Size: Myna±. **Field Characters**: A chestnut-rufous woodpecker, cross-barred with black on wings and tail. The pale-edged feathers of the throat produce a scaly effect. A crescent-shaped crimson patch of feathers under eye in male; absent in female. Otherwise sexes alike. Pairs in thin deciduous forest. **Distribution**: Practically the entire Indian Union; Bangladesh; Sri Lanka; Myanmar. Plains and hills up to about 1500 m locally. Three races, chiefly on details of coloration. **Habits**: A typical woodpecker. Affects open secondary jungle. **Food**: Largely the eggs, pupae and adults of tree ants (*Cremastogaster*) obtained by digging with its bill into the arboreal carton-like nests of these insects. Occasionally eats the pulp of ripe banyan and other wild figs, and nectar of Silk Cotton and Coral flowers. **Call**: A high-pitched, quick-repeated nasal *keenk-keenk-keenk* very like one of the more familiar calls of the Indian Myna. **Nesting**: *Season* — chiefly February to April. *Nest* — a hole excavated in the ball-shaped carton-like nests of *Cremastogaster* tree ants, strangely enough while they are alive and swarming with the ferocious insects! *Eggs* — 2 or 3, pure white, unglossed. The eggs and chicks, as well as the incubating parent, seem to suffer no harm from the ants amongst whom the brood is raised.

318. **Little Scalybellied Green Woodpecker**
Picus myrmecophoneus (Stresemann)

Plate 40

Syn. No. 808

Local names: *Maramkothi*: for all woodpeckers (Malayalam); *Kerella* (Sinhala); *Maramkothi, Thachchan kuruvi* (Tamil).

Size: Myna+. **Field Characters**: A typical woodpecker with stout chisel-shaped bill and stiff pointed wedge-shaped tail. Grass-green above with yellow rump, greenish brown faintly white barred tail. Crown and crest crimson in male, black in female. Prominent white supercilium, black bordered above. Cheeks greyish white streaked with black. Greenish fulvous below scalloped or squamated with black. Fulvous grey chin and throat streaked with white. **Distribution**: Throughout the Indian Union from Haryana eastwards and south to Kerala. Bangladesh; Sri Lanka. **Habits**: Fairly common in moist-deciduous and semi-evergreen forests, open secondary jungle and plantations. Partial to rubber plantations in South India. Often seen on the ground. **Food**: Largely ants, termites, beetle larvae from cattle dung and flower nectar when available. **Call**: Usually silent except for typical woodpecker drumming. **Nesting**: *Season* — January to June. *Nest* — hole in a tree, 4 to 8 m above ground. *Eggs* — 3 to 5, pure white. Both sexes share parental duties.

319. **Small Yellownaped Woodpecker** *Picus chlorolophus* Vieillot

ACN: Lesser Yellownape

Plate 40

Syn. No. 816

Local name: *Maramkothi* (Malayalam).

Size: Myna+. **Field Characters**: A medium-sized yellowish green woodpecker with golden nuchal crest. Forehead, supercilia which extends and meets at nape, and a moustachial streak crimson. Female similar but crimson on head confined to a short broad line behind head and nape. **Distribution**: Entire Indian Union including NE.states and the peninsula in three races, up to 2100 m in evergreen and moist-deciduous biotope. Also Pakistan; Bangladesh; Sri Lanka. **Habits**: Typical woodpecker. Usually met with in pairs, often among the mixed hunting parties of drongos, minivets, babblers, flycatchers and other insectivorous birds. Commonly descends to the ground to pick ants, etc. **Food**: Ants, termites, beetle larvae, etc. Occasionally berries. **Call**: A single long-drawn nasal scream — *cheenk* — by both sexes, repeated monotonously at several seconds' interval for prolonged periods at a time. Also other vocalizations and drumming on wood as characteristic of the family. **Nesting**: *Season* — overall January to July, chiefly April-May. *Nest* — a hole excavated by the birds in the trunk or branch of a forest tree, 3 to 7 m up. *Eggs* — 2, white blunt ovals. Incubation period, and share of the sexes, undetermined.

320. **Lesser Goldenbacked Woodpecker**

Dinopium benghalense (Linnaeus)

ACN: Blackrumped Flameback

Plate 41

Syn. No. 819

Local names: *Son pathi sutar* (Marathi). Woodpeckers in general: *Maramkothi, Tachchan kuruvi, Manu poluku* (Tamil); *Vadrangi pitta* (Telugu).

Size: Myna+. **Field Characters**: Upper plumage golden yellow and black; lower buffy white streaked with black, more boldly on breast. Crown and occipital crest crimson. Female similar, but with forecrown black stippled with white, and only occipital crest crimson. Singly or in pairs, on tree-trunks in open wooded country, orchards, etc. **Distribution**: Practically the entire Indian Union; Bangladesh; Pakistan; Sri Lanka. Four races in India, two in Sri Lanka, based chiefly on details of coloration. Myanmar has three superficially similar but distinct species of golden-backed woodpeckers. **Habits**: Affects open tree and scrub jungle and is partial to mango topes, groves of ancient trees and coconut plantations. Works up stems and boughs of trees, in jerky spurts, directly or in spirals, occasionally sliding a few feet down in 'reverse gear', tapping on the bark and chiselling away rotten wood for beetles and insects hiding in the crannies. Black ants, sometimes taken on ground, form a considerable proportion of its diet, and pulp of ripe fruit as well as flower nectar are also eaten. **Call**: A loud, harsh, chattering 'laugh' uttered mostly on the wing. Flight dipping, as typical of woodpeckers. **Nesting**: *Season* — March to August. *Nest* — an unlined hollow in a tree-stem or branch, excavated by the birds, 2 to 10 m up. *Eggs* — 3, glossy china white. Both sexes share all domestic duties.

321. **Indian Goldenbacked threetoed Woodpecker**

Dinopium javanense (Ljungh)

ACN: Common Flameback

Plate 41

Syn. No. 825

Local names: *Kanu tolachhi* (Telugu); *Maram tolachhi, Thachchan kuruvi* (Tamil); *Maramkothi* (all woodpeckers, Malayalam).

Size: Myna+. **Field Characters**: Distinguished from the very similar Lesser Goldenbacked Woodpecker by the crimson rump and orange or scarlet mixture on upper back. The black nape distinguishes it from the Whitenaped Large Goldenbacked woodpecker. Crown and crest crimson in male; black stippled with white in female. **Distribution**: Two races in Peninsular race *D. j. malabaricum* restricted to the Western Ghats from *c.*16°N southwards to Kerala and hills of W. Tamil Nadu. The eastern race *D. j. intermedium* NE. states south of the Brahmaputra and eastwards. **Habits**: Foothill moist-deciduous and evergreen forests. Keeps in pairs, often in the company of mixed hunting parties. **Food**: Insects and insect larvae. **Call**: A tinny scream quite distinct from that of the Goldenbacked Woodpecker. **Nesting**: *Season* — January to May. *Nest* — a tree hole usually at a height between 2 to 10 m. *Eggs* — 2 or 4, white.

322. **Great Black Woodpecker** *Dryocopus javensis* (Horsfield)

ACN: Whitebellied Woodpecker

Plate 41

Syn. No. 830

Local names: *Bhainsa khidree* (=.buffalo woodpecker - Bastar dist., M.P.); *Kakka Maramkothi* (Malayalam).

Size: House crow+. **Field Characters**: A magnificent, large black woodpecker with conspicuous white rump and white underparts. Forehead crown, crest and cheeks brilliant crimson in the male, crimson confined to nape in female. **Distribution**: Surat Dangs, southwards in the Western Ghats to Kerala and hills of Tamil Nadu. Recorded from Bastar and SE. Raipur in Madhya Pradesh, and the E. Ghats. Likely to occur in Orissa and Lower Bengal in suitable habitat. A race in the Andamans. **Habits**: Not uncommon but restricted to high rainfall evergreen and moist deciduous forests with lofty trees and bamboo. Intolerant of human disturbance forsaking areas under timber extraction. Behaviour similar to other woodpeckers. Keeps in noisy pairs or family parties. **Food**: Largely ants, beetles, grubs. **Call**: A wild resounding metallic single note *chiank* given by both sexes. A short chuckle given on wing. The machine gun-like loud drumming is usually heard during the breeding season. **Nesting**: *Season* — January to March. *Nest* — a tree hole at heights between 6 and 18 m. *Eggs* — normally 2. Both sexes share parental duties.

323. **Yellowfronted Pied** or **Mahratta Woodpecker**
Picoides mahrattensis (Latham)

NN: Yellowcrowned Woodpecker

Plate 40

Syn. No. 847

Local names: For woodpeckers in general: *Katphora* (Hindi); *Vadrangi pitta* (Telugu); *Maramkothi* (Malayalam); *Chitla katkola* (Saugor dist., M.P.); *Kaudya sutar* (Marathi).

Size: Bulbul±. **Field Characters**: A small typical woodpecker with long, stout, pointed bill and stiff, wedge-shaped tail. Irregularly spotted black and white above. Whitish, brown-streaked breast and flanks; scarlet-crimson on abdomen and vent. Female lacks scarlet in crest. Singly or pairs, in groves and thin jungle. **Distribution**: Practically throughout the Indian Union from about 1000 m in the Himalayas southward. Also Sri Lanka; Bangladesh; Pakistan; Myanmar. **Habits**: Affects open scrub country, light deciduous forest, mango orchards and groves around villages. Scuttles up tree-trunks in jerky spurts, tapping on the bark and digging into rotten wood for insects and grubs. The tail, pressed against the stem, serves as the third leg of a tripod to support the clinging bird. The long, extensive barb-tipped tongue helps to skewer out grubs from borings, ants also eaten. Flight typical of woodpeckers', swift and undulating — a series of rapid wing beats followed by a short pause with wings closed. **Call**: A sharp *click, click*, or *click-r-r-r*. **Nesting**: *Season* — principally January to May. *Nest* — a hole excavated in decaying branch at moderate height, with entrance often on underside. *Eggs* — 3, glossy white. Both sexes share domestic duties.

324. **Pigmy Woodpecker** *Picoides nanus* (Vigors)

NN: Browncapped Woodpecker

Plate 40

Syn. No. 851

Local name: *Chitta suruti pachhi* (Telugu).

Size: Sparrow-. **Field Characters**: A diminutive pied woodpecker, barred dark brown and white above; dusky white below with faint brown longitudinal streaks. A conspicuous broad white stripe from above eye down sides of neck. Female lacks the narrow scarlet streak on either side of hindcrown. Singly or pairs in openly wooded deciduous country. **Distribution**: Practically the entire Indian Union and Bangladesh. Himalayan foothills and terai (including Nepal and Sikkim), and peninsular plains and hills. Also Sri Lanka. **Habits**: Like the Mahratta and other woodpeckers, but more commonly associating with the mixed itinerant hunting parties of small birds. Feeds on stems of saplings close to ground as well as high up among the slender branches and end-twigs of tall trees, running jerkily up and down and around them with the agility of a nuthatch and flying on to the next tree-top. **Food**: Insects, flower-nectar, and soft pulp of berries and banyan and peepul figs. **Call**: A feeble, mousy *click-r-r-r* as contact note between a pair. **Nesting**: *Season* — February to April, varying locally in the different parts of its range. *Nest* — a natural hollow in a rotten branch, or hole excavated by the birds themselves. *Eggs* — 2 or 3, glossy white, short blunt ovals.

325. **Heartspotted Woodpecker** *Hemicircus canente* (Lesson)

Plate 40

Syn. No. 856

Local name: *Pulli Maramkothi* (Malayalam).

Size: Sparrow+. **Field Characters**: A small, squat black-and-buff woodpecker with a short thin neck, large crested head, and a strikingly stumpy rounded tail. Sexes dissimilar. Pairs in deciduous forest. **Distribution**: Peninsular India from Kerala north to Gujarat and Khandesh, and east toWest Bengal, NE.hill states, E. Ghats and Bangladesh. Plains and foothills up to *c.* 1300 m. Affects moist-deciduous biotope, partial to teak and bamboo forest. **Habits**: Pairs frequently seen with the mixed hunting parties of insectivorous birds, jerkily creeping along the terminal twigs of trees and tapping on them to dislodge lurking insects. Often perches crosswise on a branch like a passerine bird or its relative the Wryneck. **Food**: Ants, termites, grubs, etc. **Call**: A characteristic harsh but not unpleasant trill of 7 or 8 *twee, twee, twee* notes. A sharp double *tchlik-tchlik* in flight. Also drums on branches during the breeding season. **Nesting**: *Season* — chiefly November to April. *Nest* — a tiny hole drilled in a dead branch 3 or 4 m up; sometimes higher or lower. *Eggs* — 3, sometimes 2, white, unmarked. Incubation period and share of the sexes unrecorded.

326. **Blackbacked Woodpecker** *Chrysocolaptes festivus* (Boddaert)

ACN: Whitenaped Woodpecker

Plate 41

Syn. No. 858

Size: Pigeon-. **Field Characters**: Easily mistaken for the Goldenbacked Woodpecker. Distinguished by the prominent white V on upper back, black back and tail and golden olive wings. Below cheeks, chin, throat and foreneck fulvous white with five narrow

longitudinal black streaks, as opposed to black streaked with white in the Goldenbacked is diagnostic. **Distribution**: Peninsular India except western dry zone and NE. India and further east. Sri Lanka. **Habits**: Keeps singly or in pairs in open deciduous tree and bamboo forest. Feeds on tree trunks and on the ground. Roosts at night in disused nest holes chiselled one above the other. **Food**: Chiefly ants and grubs of wood boring beetles. **Call**: A loud chattering 'laugh' similar to that of the Goldenbacked. **Nesting**: *Season* — November to March. *Nest* — a distinctive pear-shaped hole. *Eggs* — normally single, white. Both sexes share domestic duties.

327. **Longtailed Broadbill** *Psarisomus dalhousiae* (Jameson)

Plate 42

Syn. No. 865

Local names: *Rai-i* (Nepal); *Dang-mo-mith, Dang-mit-pho* (Lepcha); *Dao hangari raja* (Cachari).

Size: Bulbul+. **Field Character**: A gaudy, grass-green bird with a long graduated tail, bright blue above, black below. Chin and throat bright yellow extending up to sides of neck. Crown black with an oblong spot on either side and a bright blue patch in the centre. A white patch on the black underside of wings conspicuous in flight. Sexes alike. **Distribution**: Himalayas from Garhwal eastwards. Arunachal Pradesh and south to Manipur, Mizoram and Bangladesh. **Habits**: Arboreal and social. Seen in flocks of 15 to 30 in tropical and subtropical evergreen biotope up to 2000 m. In habits and flight resembles minivets. **Food**: Insects and spiders. **Call**: A distinctive sharp whistle *tseeay* repeated continuously 5 to 8 times. **Nesting**: *Season* — April to June. *Nest* — a well made pear-shaped pouch of bamboo and other leaves, creepers, stems, etc., with a 'beard' of loose material hanging from the bottom *c.* 1 metre in length, suspended by a thin flexible attachment on branches over ravines or often on telegraph lines spanning nullahs. *Eggs* — 5 to 6 of various shades of red. Both sexes share all parental duties.

328. **Bluenaped Pitta** *Pitta nipalensis* (Hodgson)

Plate 42

Syn. No. 866

Local name: *Dao bui yegashi* (Cachari).

Size: Quail+. **Field Characters**: A brightly coloured chubby stub-tailed terrestrial bird, blue and greenish brown above, plain fulvous below. Nape and hindneck bright blue. Tail brown tinged with green. Female similar to male, but hindcrown rufous-fulvous instead of blue, and hindneck green. **Distribution**: From central Nepal to Arunachal Pradesh, south to Manipur, Mizoram and Bangladesh hills. **Habits**: Affects tropical and subtropical secondary evergreen and bamboo jungle. Largely terrestrial moving around in long hops like a gerbil. A skulker venturing out into clearings only in the early mornings and late evenings. **Food**: Ground insects and other small animals. **Call**: A beautiful double whistle uttered on the ground and from a tree at dawn and dusk. **Nesting**: *Season* — April to August. *Nest* — a rugby football-shaped structure of bamboo leaves, grass, etc., placed on the ground inside a bamboo clump or dense shrub. *Eggs* — normally 4, white marked with reddish brown and lilac. Both sexes share parental chores.

329. **Indian Pitta** *Pitta brachyura* (Linnaeus)

Plate 42

Syn. No. 867

Local names: *Navrang* (Hindi); *Shumcha* (Bengal); *Polanki pitta* (Telugu); *Arumani kuruvi, Thotta kallan, Kathelachi* (Tamil); *Kavi* (Malayalam); *Avichchiya* (Sinhala); *Dao bui yegashi* (Cachari).

Size: Myna±. **Field Characters**: A gaudy stub-tailed thrush-like bird, green, blue, fulvous, black and white, with crimson abdomen and under tail. In flight a round white spot near tip of wing conspicuous. Sexes alike. Singly, on ground in undergrowth in scrub jungle. **Distribution**: Well-wooded portions of the Indian Union, from about 1200 m in the HImalayas southward; Pakistan; Sri Lanka; Bangladesh. Resident and locally migratory. **Habits**: Mainly terrestrial; roosts in trees. Affects wooded country and is fond of dry nullahs and ravines with tangled undergrowth. Hops along like thrush turning over dead leaves and digging into damp earth for insects and grubs which comprise its food. Stumpy tail wagged slowly and deliberately up and down. **Call**: A loud, clear double whistle, *wheet-tew*, uttered chiefly morning and evening, and oftener on cloudy overcast days. Three or four birds sometimes answer one another from different directions. Its local migrations appear to be controlled by the SW. monsoon. **Nesting**: *Season* — May to August. *Nest* — large, globular, of twigs, grass, roots, etc., on ground under a bush or more commonly up in the fork of a low tree. *Eggs* — 4 to 6, glossy china white with spots, specks and fine hair lines of dull or dark purple.

330. **Hooded** or **Greenbreasted Pitta** *Pitta sordida* (P.L.S. Muller)

Plate 42

Syn. No. 869

Local names: *Phattim pho* (Lepcha).

Size: Quail. **Field Characters**: Dumpy, and stub-tailed as other pittas, largely green. Crown and nape rufous-brown otherwise largely black. Mantle, back, rump dark glossy, bluish green, shoulder, upper tail-coverts and a patch on wing bright blue. Tail black tipped with blue. Breast greenish blue, abdomen blue, vent and under tail-coverts bright crimson. Sexes alike. **Distribution**: The Himalayan foothills from Uttar Pradesh eastwards to lower Bengal, Bangladesh and Myanmar. A race resident in the Nicobars. **Habits**: Affects sub-tropical moist deciduous, and evergreen secondary forest and scrub. Largely similar in habits and food to the Indian Pitta. **Call**: A quick, loud fluty whistle *quck-quck* uttered for a second at intervals. **Nesting**: *Season* — April to June. *Nest* — a loosely put together oval ball of bamboo leaves lined with grass in thick cover. *Eggs* — 4 or 5, white with spots and hair lines of purple. Both sexes share parental duties.

331. **Singing Bush Lark** *Mirafra javanica* Horsfield

Plate 42

Syn. No. 872

Local names: *Agan, Agin* (Hindi); *Burutta pitta, Agin pitta* (Telugu).

Size: Sparrow. **Field Characters**: Similar to a female sparrow with much more rufous or chestnut in the wings; very noticeable during its undulating flight. Outer tail feathers white. Below fulvous streaked with triangular brown marks. Sexes alike. **Distribution**: Patchily

distributed throughout the subcontinent, except eastern India, south to Kerala. Pakistan. **Habits**: Occurs in dry bush covered undulating plains and foothills in grassland, fallow cultivation and scrubby, sandy, semi-desert. Keeps singly or in pairs, or small parties foraging on the ground. **Food**: Grass and weed seeds, insects. **Call**: The song flight of the breeding male is an impressive performance. The bird rises up to 30 m in the air and hovers on stiffly quivering wings like the skylark, 'floating' in the breeze over an extensive area for considerable periods giving a spirited and sustained rendering of its flight song which incorporates imitations of the calls of most of the birds which share its habitat. **Nesting**: *Season* — March to September. *Nest* — a shallow grass cup lined with fine grass placed on the ground well concealed in a clump of grass. *Eggs* — 2 to 4.

332. **Bush Lark** *Mirafra assamica* Horsfield

ACN: Rufouswinged Lark

Plate 42

Syn. No. 873

Local names: *Aggia* or *Aggin* (Hindi); *Bhiriri* (Bengal).

Size: Sparrow. **Field Characters**: Upperparts ashy brown with dark centres and *without* rufous (race *assamica*); upperparts not dark but *very* rufous (race *affinis*). The large rufous or chestnut patch on wing conspicuous in flight and diagnostic. **Distribution**: Throughout the Indian Union. Northern race *assamica* from Haryana, Arunachal Pradesh and Manipur, south to Bihar, northern Orissa, northern Madhya Pradesh, and lower Bengal; Bangladesh. The southern race *affinis* in SE. Orissa and SE. Madhya Pradesh, throughout the Peninsula and Sri Lanka. **Habits**: Affects open country. Seen singly or in pairs or small parties, running about on the ground or perched on a bush, rock, etc. **Food**: Seeds of grass and weeds. Insects. **Call**: The spectacular song-cum-display flight is characteristic. In the breeding season, the male flutters up from an elevated perch vertically to a height of about 10 m uttering a spirited *sweer-sweer-sweer* call which fades off and the bird floats or parachutes down to its perch on motionless wings. **Nesting**: *Season* — March to May in the south. *Nest* — a shallow grass cup lined with finer grass. Occasionally domed and placed on the ground. *Eggs* — 3 or 4, greyish, greenish or yellow, white speckled with brown. Parents give 'broken wing' distraction display if disturbed on the nest.

333. **Redwinged Bush Lark** *Mirafra erythroptera* Blyth

ACN: Indian Lark

Plate 42

Syn. No. 877

Local names: *Aggiya* (Hindi); *Jhirjhira* (Saugor, M.P.); *Chinna eeli jitta* (Telugu).

Size: Sparrow. **Field Characters**: Distinguished from other larks of same size by the large chestnut patch on the wings, particularly conspicuous in flight. Sexes alike. Loose parties, in dry stony scrub-and-bush country. More commonly perched singly on leafless bush. **Distribution**: Patchily throughout the greater part of the Indian Union excepting the humid heavy rainfall tracts. Pakistan. Represented in Myanmar and Sri Lanka by closely allied species. Difficult to separate in the field from the Bush Lark (332). **Habits**: The most characteristic and diagnostic habit of the Redwinged Bush Lark is its spectacular song-flight. From a bush-top the male flutters straight up in the air, 10 m or so, trilling a quick-

repeated mousy *si-si-si-si*. This is succeeded immediately by a squeaky *wisee, wisee, wisee, wisee,* etc., getting slower in tempo and fading out as the performer parachutes back to his perch, wings stiffly outstretched in a wide V above the back, and legs dangling. This performance lasts about 20 seconds, and during the breeding season is repeated again and again. **Nesting**: *Season* — April to October, varying locally. *Nest* — a shallow cup of grass, lined with hair, etc., and sometimes domed. Usually well concealed at the base of a bush. *Eggs* — 2 to 4, pale greyish white, yellowish or stone colour, speckled and blotched with various shades of brown.

334. **Blackbellied Finch-Lark** *Eremopterix grisea* (Scopoli)

ACN: Ashycrowned Sparrow Lark

Plate 43

Syn. No. 878

Local names: *Diyora, Duri, Fothauli, Deoli* (Hindi); *Math charai, Dhula chata* (Bengali); *Poti pichika, Piyada pichika* (Telugu); *Gotowli* (Bihar Mirshikars); *Gomaritta* (Sinhala); *Vanampadi kuruvi, Munan vanambadi* (Tamil); *Karimpandi* (Malayalam); *Bhon chakli* (Gujarati).

Size: Sparrow-. **Field Characters**: A small, squat, thick-billed crestless lark. Male sandy brown above, black below, with ashy crown and whitish cheeks. Female rather like the hen House Sparrow. Pairs or small flocks in open plains country. **Distribution**: All India from the Himalayas to Kanyakumari, east to about Calcutta. Also Pakistan and Sri Lanka. Resident, and locally migratory. **Habits**: Affects open cultivated country and semi-barren waste land. Squats close to the ground and shuffles along in zigzag spurts in search of seeds and insects. Very obliteratively coloured and matches sandy soil to perfection. Flies by a series of rapid wing beats as in hovering. The male performs a remarkable aerobatic display. He shoots up vertically on quivering wings, thirty metres or so, then nosedives perpendicularly some distance with wings pulled in at sides. Using the momentum he suddenly turns about to face the sky and with a few rapid flaps and wings again closed, shoots up a few metres once more. At the crest of the wave he reverses and repeats the nosedive, and so on in descending steps till when near the ground he flattens out and comes to rest on a clod or stone. A pleasant little 'wheeching' song accompanies these extravagant proceedings. The whole manoeuvre is soon repeated. **Nesting**: More or less throughout the year. *Nest* and *Eggs* — 2 or 3, very like those of the Rufoustailed Finch-Lark. Apparently female alone builds nest, but male assists in incubation and care of the young.

335. **Rufoustailed Finch-Lark** *Ammomanes phoenicurus* (Franklin)

ACN: Rufoustailed Lark

Plate 43

Syn. No. 883

Local names: *Ambali jori gadu, Dowa pitta* (Telugu); *Vanambadi kurivi* (Tamil).

Size: Sparrow+. **Field Characters**: A squat, dark rufous brown stout-billed lark with a bright rufous tail ending in a black band. Sexes alike. Pairs or small flocks, in dry open country. **Distribution**: The greater part of peninsular and continental India, north to the Ganga river. Not NE. states. Absent also in Sri Lanka and Myanmar. Only the nominate race *phoenicurus* concerns us here. **Habits**: Affects open, stony scrub-and-bush country,

ploughed fields, fallow land and the neighbourhood of cultivation. Zigzags on the ground in short spurts picking up grass and weed seeds, paddy and other grains, as well as insect food. Stampedes insects out of their hiding in the little unevennesses of the ground by rapidly flicking open its wings. Pleasant rollicking notes, uttered chiefly during the spectacular aerial display similar to that of the Blackbellied Finch-Lark, described above. **Nesting**: *Season* — principally February to May. *Nest* — a cup of grasses, etc., in a slight depression in the ground — usually in a freshly ploughed field - under shelter of a clod of earth or tiny bush. *Eggs* — 3 or 4, creamy white, freckled and spotted with reddish brown or inky purple, more densely at the broad end.

336. **Short-toed Lark** *Calandrella cinerea* (Gmelin)

NN: Greater Short-toed Lark *Calandrella brachydactyla* (Leister)

Plate 43

Syn. No. 886

Local names: *Pullak, Bagheri* (Hindi); *Akonia* (Bihar mirshikars).

Size: Sparrow. **Field Characters**: Sandy or greyish brown above streaked with black. White supercilium. Tail blackish with the two outer feathers whitish. Dull white below finely striated with brown. Gregarious habit and black tail contrasting with white underparts in flight distinguish it from other larks. **Distribution**: Both resident and winter visitor to the subcontinent. Wintering birds extend east to Myanmar and to Kerala in the Peninsula. Pakistan; Bangladesh (winter). **Habits**: Seen in large flocks in open stony country grassland, semi-desert country, fallow cultivation, sandy riverine tracts and dry tidal mudflats. Seen in huge flocks upon first arrival and before departure. **Food**: Grass- and weed seeds. Insects. **Call**: Silent in winter except for an occasional chirp. **Nesting**: *Season* — July. *Nest* — slight depression in the ground made by the bird and lined with a few blades of grass. *Eggs* — 2 or 3 of "puffy colour" mottled yellowish brown.

337. **Sand Lark** *Calandrella raytal* (Blyth)

ACN: Indian Short-toed Lark

Plate 43

Syn. No. 891

Local name: *Retal* (Hindi).

Size: Sparrow. **Field Characters**: Similar to the Short-toed Lark but smaller. Greyish sandy above streaked with brown. Below white, indistinct dark streaks on breast. Short black-and-white tail. **Distribution**: N. and E. India, south to Madhya Pradesh. Pakistan; Bangladesh. On coastal mudflats and sandy river banks and islets. **Habits**: Seen singly or two or threes or small flocks of 20 to 30 in the non-breeding season, running about and feeding on bare sandy flats in the characteristic jerky spurts of the family. **Food**: Weed seeds and insects. **Call**: The male has a distinctive song flight during the breeding season. Soaring aloft about 30 m it flies about with intermittent series of wing flaps and pauses while singing, finally shooting down vertically with closed wings and flattening out while a metre or so from the ground before alighting. **Nesting**: *Season* — February to May. *Nest* — a cup like depression in the ground at the base of a shrub, lined with grass, hair, etc. *Eggs* — 3, sometimes 2. Yellowish or greyish white, freckled with brown. Both sexes share domestic chores.

338. **Crested Lark** *Galerida cristata* (Linnaeus)

Plate 43

Syn. No. 899

Local names: *Ghandul* (Hindi for all Crested Larks); *Ghaghas chandul* (Gujarati).

Size: Sparrow+. **Field Characters**: The larger size and prominent pointed crest distinguish it from most other larks. Sexes alike. Singly or pairs in dry open country. Occasionally flocks in winter. **Distribution**: Rajasthan and continental India south to Madhya Pradesh, east to Bengal. Also Pakistan. We are mainly concerned with the resident race *chendoola*. **Habits**: Affects open, sandy or stony semi-desert with scanty grass ground cover. **Food:** Runs about in search of food: grass seeds, small beetles and other insects, etc. **Call**: Normal call note a pleasant *tee-ur*. A short, pleasant song uttered during the display flight which consists of soaring a few metres up on leisurely fluttering wings. It is also delivered from a clod or bush-top. **Nesting**: *Season* — March to June. *Nest* — a shallow cup of grass, lined with hair, etc., in open country at the base of a grass tuft or clod. *Eggs* — 3 or 4, dull yellowish white, blotched with brown and purple. Both sexes share in building the nest and tending the young. Female alone believed to incubate.

339. **Sykes's Crested Lark** *Galerida deva* (Sykes)

ACN: Tawny Lark

Plate 43

Syn. No. 907

Local name: *Chinna chandul* (Telugu).

Size: Sparrow±. **Field Characters**: A small rufous-brown lark with an upstanding pointed crest. **Distribution**: From eastern Rajasthan, northern Gujarat and Kutch, east through the Gangetic plain to *c.* 82°E, thence south in the Peninsula on the central plateau country to southern Karnataka and Tamil Nadu. The very similar Malabar Crested Lark *Galerida malabarica* (Scopoli) replaces it in western India. **Habits**: Affects stony, scrubby hill and plateau country, dry cultivation and generally dark coloured soils. **Food**: Weed seeds and insects. **Call**: Entirely different from that of other crested larks. The song delivered in soaring, hovering, wandering flight is almost identical to that of the Singing Bush Lark including mimicked calls of other birds. **Nesting**: *Season* — March to September. *Nest* — the usual lark nest, a grass cup on the ground. *Eggs* — 2 or 3, rarely 4, greyish white, stippled with brown. Both sexes share parental duties.

340. **Indian Small Skylark** *Alauda gulgula* Franklin

ACN: Oriental Skylark

Plate 43

Syn. No. 907

Local names: *Bharat* (Hindi); *Jhunti bharat* (Bengal); *Barata pitta* (Telugu); *Vanambadi kuruvi* (Tamil); *Gomaritta* (Sinhala).

Size: Sparrow. **Field Characters**: Hen-sparrow-like; broad dark streaks in the fulvous of the upper plumage. Breast fulvous narrowly streaked with blackish brown on breast. Resembles the pipit generally in having the outer most tail-feathers largely white. Sexes

alike. Pairs or scattered parties in open country and cultivation. Occasionally large flocks in winter. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident, but also locally migratory; also a winter visitor. Three races (out of six) mainly concern us, differing in details of size and coloration. **Habits**: Essentially a bird of grassy meadows and open cultivation, both plains and hills. Particularly fond of damp grassland bordering jheels. **Food**: Feeds on ground on seeds and insects. **Habits**: Has a peculiar fluttering flight. The song, delivered on the wing, is the skylark's chief claim to distinction. From the ground the bird springs almost vertically upwards on fluttering wings; rising higher and higher till it becomes a speck in the sky. There it remains more or less stationary on rapidly vibrating wings and pours forth a deluge of spirited, melodious warbling, often for over 10 minutes at a stretch. The singer descends to the ground thereafter, but the performance is soon repeated. **Nesting**: *Season* — variable; mainly February to July. *Nest* — a cup-like depression in the ground, or a hoof-print, lined with grass under shelter of a clod or grass tussock. *Eggs* — 2 to 4, pale brownish grey or whitish, spotted and streaked with brown.

341. **Dusky Crag Martin** *Hirundo concolor* Sykes

Plate 44

Syn. No. 914

Local names: *Chatan ababil* (Hindi); *Katrikappakshi* (Malayalam).

Size: Sparrow-. **Field Characters**: Sooty brown, with short square tail and swallow-like wings and flight. A roundish white spot on all tail feathers except the middle and outermost pairs, conspicuous when the bird banks or wheels in the air. Sexes alike. Small numbers about cliff, ruined forts, etc., in company with swallows and swifts.

In winter the migratory Crag Martin (*Hirundo rupestris*) is also found in association with our resident birds. It is slightly larger and paler, and readily distinguishable by its whitish underparts.

Distribution: All india excepting NE. states. Local and patchy. Absent in Bangladesh; Pakistan; Sri Lanka; and Myanmar. **Habits**: A close relation of the swallows. Inseparable from crags, rock caves, ancient forts and buildings, irrigation dams, etc. Insectivorous. Hawks midges and other tiny winged insects in the air. Utters a soft *chit-chit* as it flies. **Nesting**: *Season* — principally between June and October when wet mud for nest building is easily obtainable. *Nest* — a deepish oval saucer of mud lined with tow, feathers, etc. Attached like a bracket to vertical rock face or wall, under natural overhang or archway in building. *Eggs* — 2 or 3, white, minutely speckled and spotted with reddish brown. Both sexes share all domestic duties.

342. **Common Swallow** *Hirundo rustica* Linnaeus

Plate 44

Syn. No. 916

Local names: *Ababil* (Hindi and Bengali — generally for all swallows, martins and swifts); *Katij* (Kashmir); *Kir kishi, Totaki* (Brahui - Baluchistan); *Talai illatha kuruvi, Adai kallan kuruvi, Tam-padi* (Tamil); *Wana kovela* (Telugu); *Paras pitta* (Gond); *Wehi lihiniya* (Sinhala); *Vayalkoti* (Malayalam).

Size: Sparrow±. **Field characters**: Glossy steel blue or purplish blue above, pale pinkish white below. Chestnut forehead and throat, the latter bordered by a broad glossy black pectoral band. Deeply forked 'swallow' tail, especially prominent in flight. Sexes alike.

Gregarious. Usually seen huddled on telegraph wires or hawking midges over open country or marshland. **Distribution**: In winter throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Chiefly two races, differing slightly in size and coloration. The NE. Siberian race *tytleri*, with chestnut underparts, visits NE. India; Bangladesh and Myanmar. **Habits**: Winter visitor. Commences arriving September/ October; departs April/May. Hawks winged insects high up in air or close to ground. Roosts in large congregations amongst reed-beds and tamarisk thickets standing in water. Flight swift and graceful — a few rapid wing strokes followed by a long glide. Deeply forked tail adds to agility in turning, twisting and wheeling movements. **Food**: Chiefly flies and midges. **Call**: A pleasant, low twittering. **Nesting**: Within our limits, only the Himalayas from Kashmir to NE. India, 1000 to 2000 m elevation. *Season* — April to July. Often 2 successive broods raised. *Nest* — similar to that of Crag Martin, but with the mud reinforced with grass. Commonly built against beams and rafters within dwelling houses and stables. *Eggs* — 4 or 5, similar in colour and markings to those of the Crag Martin. Both sexes share all domestic duties

343. **Nilgiri House Swallow** *Hirundo tahitica* Gmelin

NN: Hill Swallow *Hirundo domicola* Jerdon

Plate 44

Syn. No. 919

Local names: *Kanaka trikakkili* (Malayalam); *Wehi lihiniya* (Sinhala); *Tampadi, Talai illada kuruvi* (Tamil).

Size: Sparrow-. **Field Characters**: Forehead chestnut, otherwise, including deeply forked tail, black with a metallic green gloss above. Below chin, throat and upper breast chestnut, rest of underpart pale ashy. Sexes alike. **Distribution**: Hills of south western India from Kodagu Dt., Karnataka to Kerala and W. Tamil Nadu. Sri Lanka. A second race resident in the Andamans. **Habits**: Similar to other swallows. Tame and confiding. Often seen perched huddled together on bare branches or quartering for insects along grassy slopes. **Food**: Midges and other insects taken in flight. **Call**: Pleasing twittering notes uttered in flight and when perched. **Nesting**: *Season* — March to May. *Nest* — a half saucer of mud pellets attached to wall's, rockfaces, culverts or commonly beams and rafters in houses. Same site and nest used year after year. *Eggs* — 2 or 3, white, minutely spotted or speckled with reddish brown. Both sexes share parental duties.

344. **Wiretailed Swallow** *Hirundo smithii* Leach

Plate 44

Syn. No. 921

Local names: *Ababil* (Hindi and Bengali — generally for all swallows, martins and swifts); *Katij* (Kashmir); *Kir kishi, Totaki* (Brahui - Baluchistan); *Talai illatha kuruvi, Adai kallan kuruvi, Tam-padi* (Tamil); *Wana kovela* (Telugu); *Paras pitta* (Gond); *Wehi lihiniya* (Sinhala); *Vayalkoti* (Malayalam).

Size: Sparrow±. **Field Characters**: Glossy steel blue above, with a chestnut cap. Readily distinguished from other swallows by its glistening white underparts and two long, fine 'wires' in the tail. Sexes alike, but tail wires of female shorter. Pairs or parties, in open cultivation, near water. **Distribution**: All India from about 3000 m in the Himalayas south to the Nilgiris; Bangladesh; Pakistan; Myanmar. Sri Lanka (once). Mainly resident, but

also locally migratory. Only the one race *filifera* concerns us. **Habits**: Typical of the swallows, but is more confined to the neighbourhood of water. Seldom encountered away from streams, tanks, reservoirs, etc., or in large flocks. Utters a lively chit-chit while hawking midges over a jheel or ploughed field. Male has a pretty twittering song in breeding season. **Nesting**: *Season* — practically all year; principally March to September. *Nest* — a mud-saucer bracket, very similar to Crag Martin's, attached under a culvert or rock overhang near water. *Eggs* — 3 to 5, like those of the Common Swallow. Both sexes share in building the nest and feeding the young.

345. **Indian Cliff Swallow** *Hirundo fluvicola* Blyth

ACN: Streakthroated Swallow

Plate 44

Syn. No. 922

Local names: *Nahar ababil* (Hindi); *Bhekhad ababil* (Gujarati).

Size: Sparrow-. **Field Characters**: Very like Dusky Crag Martin, also with almost short square-cut tail, but glossy steel-blue above with pale brown rump and dull chestnut forehead and crown; whitish below boldly streaked with brown on throat and upper breast. Sexes alike. Large congregations hawking insects near water. **Distribution**: Pakistan plains (excluding Sind), and eastward through Jammu and S. Kashmir along the base of the Himalayas to Sikkim duars; southward throughout the Peninsula to about 10°N. (Pt.Calimere). Sri Lanka (one sight record). Local and patchy. **Habits**: Keeps in large colonies near water — canals, tanks, moats, etc., e.g. along the Ganges and Jumna canals in U.P. Hawks midges and other tiny winged insects often close over water, usually in company with other swallows and House Swifts. Utters a sharp *trr-trr* in flight. On winter mornings long, close-packed lines sun themselves on telegraph wires, till the sun is well up, at one point suddenly 'exploding', as to a given signal, and dispersing to fly about in a scattered rabble and feed. **Nesting**: *Season* — more or less all year; principally December to April and July to October. *Nest* — colonial: a large agglomeration of mud, like a disorderly honeycomb, sometimes with hundreds of 'pots' fused together, each with a short tubular entrance. Attached under bridges over canals, or under gateway arches, etc., usually near water, often within a town. *Eggs* — 3 or 4, normally white, sometimes smudged with brownish.

346. **Redrumped** or **Striated Swallow** *Hirundo daurica* Linnaeus

Plate 44

Syn. No. 924

Local names: *Masjid-ababil* (Hindi); *Varayankatrika* (Malayalam); *Kenchi ababil* (Gujarati); *Phairni* (Kashmir).

Size: Sparrow±. **Field Characters**: Glossy deep blue above, fulvous white below finely streaked with dark brown. The chestnut half-collar on hindneck, the deeply forked 'swallow' tail, and the chestnut rump (conspicuous when banking in flight) are diagnostic points. Sometimes the red rump looks very pale — almost whitish. Sexes alike. Pairs or parties hawking insects on the wing about cliff, ancient hill forts, ruined buildings, etc., also in open country. **Distribution**: All India up to 500 m in the Himalayas; also Andamans; Bangladesh; Pakistan; Sri Lanka; Myanmar. Several races, of which the most widespread resident race is *erythropygia* — Sykes's Striated Swallow — distinguished by very narrow

brown streaks on the underparts. In winter, when migratory races are present, differentiation in field difficult, but the commonest of these — seen perched in thousands on telegraph wires — is *nipalensis*, conspicuously broad-streaked below. **Habits**: Similar to those of the Common Swallow and often seen hawking in association with it, and with crag martins and swifts. **Nesting**: *Season* — April to August, varying locally. *Nest* — a retort-shaped structure of plastered mud with a narrow tubular entrance, stuck flat against the ceiling of a rock overhang, cave, or veranda of occupied dwelling. The bulbous egg chamber is lined with feathers. *Eggs* — 3 or 4, pure white. Both sexes share in building the nest and feeding the young.

347. **House Martin** *Delichon urbica* (Linnaeus)

Plate 44

Syn. No. 930

Local names: None recorded.

Size: Sparrow. **Field Characters**: Small black-and-white swallow with short forked tail. Glossy blue black above with white rump and pure white below. Sexes alike. **Distribution**: Throughout the Indian Union. Resident and migratory. Pakistan; Bangladesh(?). **Habits**: Affects open valleys and grassy hillsides with cliffs; flight swift and graceful. Gregarious. **Food**: Midges and other insects hawked in flight. **Nesting**: *Season* — June and July in Ladakh. *Nest* — a deep earthern cup under a ledge or overhang on a high cliff-face. *Eggs* — 3 or 4, white unmarked. Both sexes share parental duties.

348. **Grey Shrike** *Lanius excubitor* Linnaeus

Plate 45

Syn. No. 933

Local names: *Dudiya latora, Safed latora, Bada latora* (Hindi); *Dudhio* or *Moto latoro* (Gujarati); *Kachkacha, Anjana* (Bengal); *Pedda kiriti gadu* (Telugu).

Size: Myna±. **Field Characters**: A silver-grey bird with longish black-and-white tail. A broad black stripe from bill backward through eye. Black wing quills with a white patch or 'mirror' conspicuous in flight. Heavy, hooked hawk-like bill. Sexes alike. Singly, on bush-tops in dry open country. **Distribution**: The dry and semi-desert portions of India and Pakistan, from the foot of the HImalayas south to Belgaum, east to Calcutta. Recorded from Tamil Nadu and Sri Lanka in winter. Not Eastern Ghats, NE. Indian states, Bangladesh, or Myanmar. The race chiefly concerned is the Indian *lahtora*. **Habits**: Inhabits semi-desert and dry cultivation interspersed with patches of thorny scrub and waste land. From exposed perch on bush-top, swoops to ground to carry off locusts, lizards, mice, etc. Prey held under foot and torn to pieces with hooked bill before devouring. When disturbed, drops from perch and flies flat along ground shooting up at end to another bush-top a 20 m away. **Call**: Harsh grating notes; breeding males have a pleasing tinkling song. A good mimic of other birds' calls. Shrikes are known as Butcher Birds from their habit of killing more than needed immediately for food, and storing the surplus impaled on thorns. **Nesting**: *Season* — January to October, chiefly March/April. *Nest* — a deep cup of thorny twigs, with grass, rags, wool or feathers as lining, in thorny trees between 2 and 4 m up. *Eggs* — 3 to 6, variable, mostly pale greenish white blotched and spotted with purplish brown, especially at broad end.

349. **Baybacked Shrike** *Lanius vittatus* Valenciennes

Plate 45

Syn. No. 940

Local names: *Pachanak* (Hindi); *Pachanak latoro* (Gujarati); *Boro* (Sindi); *Chhoto kilatora, Khayeri karkata* (Bengali); *Chinna bilinki, Venne dega* (Telugu); *Kichan kuruvi* (Tamil); *Asurakkili* (Malayalam).

Size: Bulbul±. **Field Characters**: The smallest Indian shrike. Hook-tipped bill, grey and white head with broad black band across forehead and backward through the eyes; chestnut-maroon back; white underparts. Black-and-white graduated tail; whitish rump; white 'mirrors' on black wing quills. Sexes alike. Singly in dry, thinly-wooded country, babool jungle, and cultivation. **Distribution**: Pakistan and practically the entire Indian Union (excepting NE. states) from the Himalayan foothills to Kanyakumari; east to West Bengal. Not Bangladesh, Sri Lanka and Myanmar. No races. **Habits**: Very similar to those of the Grey Shrike. Avoids pure desert areas as well as humid forest. Normally utters harsh churring notes, but in breeding season male has pleasant warbling song in which imitations of other birds' calls are freely intermingled. **Food**: Locusts and other large insects, lizards, etc. **Nesting**: *Season* — April to September, chiefly June/July. *Nest* — a neat compact cup of grass, rags, wool and feathers bound outside with cobwebs. In fork of small tree or in hedge at moderate height. *Eggs* — smaller replicas of the Grey Shrike's with the same range of variations.

350. **Rufousbacked Shrike** *Lanius schach* Linnaeus

ACN: Longtailed Shrike

Plate 45

Syn. No. 946

Local names: *Mattiya latora, Kajala latora* (Hindi); *Majhla latora* (Saugor, M.P.); *Hara wataj* (wataj = excutioner, Kashmiri); *Yerra lilinchi* (Telugu); *Kattu kuruvi, Pey kuruvi* (Tamil).

Size: Bulbul±; Myna-. **Field Characters**: Forehead and a band through the eyes black. Head grey. Lower back and rump bright rufous. Underparts washed with rufous. typical stout hooked bill. Sexes alike. Singly, in open lightly wooded and scrub country. **Distribution**: Practically throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Up to about 3000 m in the Himalayas. Seasonal visitor in some parts. Three races, on details of size and coloration. **Habits**: General habits and behaviour typical, but affects less arid country than the two foregoing species. **Call**: Harsh, scolding notes. In breeding season a pretty rambling song of considerable duration uttered in the nature of soliloquy. A very accomplished mimic of calls and noises heard in its habitat, quick at learning them and with a retentive memory. Harsh squeals of a frog caught by snake, yelps of newly born puppy, tame grey partridge's call prefaced by its human owner's whistles, and calls of numerous birds even long after many have migrated, are imitated to perfection. **Food**: Grasshoppers and large insects, lizards, young mice, etc. **Nesting**: *Season* — February to July, locally variable. *Nest* — deep compact cup of twigs, grass, wool, rags, etc., in fork of branch of small tree usually under 5 m. *Eggs* — 3 to 6, somewhat smaller than Grey Shrike's, but more or less identical with them in colour and markings.

351. **Brown Shrike** *Lanius cristatus* Linneaus

Plate 45

Syn. No. 949

Local names: *Karkata* (all Shirkes - Bengali); *Kerkheta* (Hindi); *Batte gadu, Batte kiriti gadu* (Telugu).

Size: Bulbul±. **Field Characters**: Reddish brown above except for white forehead and supercilium. A black line through eye to ear-coverts. Tail rufous-brown. Wings brownish black, chin, cheek and throat white rest pale fulvous. Some adults with crescentic bars on breast and belly. Easily confused with the Redbacked and pale brown shrikes in the western limits of its distribution. **Distribution**: Winter visitor throughout the subcontinent including Andamans, Nicobars and Lakshadweep. Also Pakistan; Bangladesh; Sri Lanka. Arrives by August-September, leaves by mid-April. Some birds seen up to June. **Habits**: Affects forest edges, secondary scrub jungle and grass covered hillsides in dry deciduous and semi-evergreen biotope. More crepuscular than other shrikes. **Food**: Large insects, small birds, mammals, lizards. Keeps a larder like other shrikes. **Call**: A harsh *chr-r-r* commonly uttered distinct from that of the Rufousbacked Shrike. Also a subdued almost inaudible warbling. **Nesting**: Extralimital.

352. **Golden Oriole** *Oriolus oriolus* (Linnaeus)

Plate 45

Syn. No. 953

Local names: *Peelak* (Hindi, Gujarati, Marathi); *Poshnul, Poshinul* (Kashmiri); *Sona bau* (Bengali); *Vanga pandu* (Telugu); *Manjakkili* (Malayalam).

Size: Myna. **Field Characters**: Bright golden yellow with black in wings and tail, and a conspicuous black streak through the eye. Female duller and greener. Singly or pairs, among leafy trees in wooded country. **Distribution**: Practically all the Indian Union excepting NE. India, up to about 2000 m in the Himalayas. Bangladesh; Pakistan; Sri Lanka. Not Myanmar. Resident in some areas, migrant in others. An individual ringed in Bhavnagar, Gujarat in September 1961 was recovered in Tadzhikistan in Central Asia in June 1971. Our only Indian race *kundoo* differs from the European chiefly in that its black eye-streak extends behind the eye. **Habits**: Arboreal. A dweller of open but well-wooded country, partial to groves of large trees around villages and cultivation, and in gardens and along roadsides even in noisy towns. Has strong dipping flight. **Call**: A harsh *cheeah* and clear fluty whistles something like *peelolo*. **Food**: Insects, banyan and peepul figs and other fruits and berries; also flower nectar. **Nesting**: *Season* — April to July. *Nest* — a beautifully woven deep cup of grass and bast fibres bound with cobweb, suspended hammockwise in fork of leafy twig 4 to 10 m up. *Eggs* — 2 or 3, white, spotted with black or reddish brown. Both sexes share all domestic duties.

353. **Blacknaped Oriole** *Oriclus chinensis* Linnaeus

NN: Slenderbilled Oriole *Oriolus tenuirostris* Blyth

Plate 45

Syn. No. 954

Local names: *Peelak* (Hindi, Gujarati, Marathi); *Poshnul, Poshinul* (Kashmiri); *Sona bau* (Bengali); *Vanga pandu* (Telugu); *Manjakkili* (Malayalam); *Sakhiati* (Assam).

Size: Myna. **Field Characters**: Similar to the Golden Oriole but with the black eye-band continued behind to meet over nape. Female duller and greener. **Distribution**: Occasional winter visitor to the Peninsula, NE. Indian states, Bangladesh. A hundred year old record from Sri Lanka. Race *tenuirostris* breeds in the eastern Himalayas from Bhutan eastwards, while races *andamanensis* and *macrourus* are resident in the Andamans and Nicobars respectively. **Habits**: Similar to Golden Oriole'. Arboreal, keeping singly or in pair to large trees with full canopy and to fruit bearing trees. **Food**: Fruits, insects and nectar. **Call**: Similar to Golden Oriole's but with a distinct diagnostic quality being a long *wheeow* or a liquid *chuck, tarry-you*. **Nesting**: *Season* — chiefly May-June in the E. Himalayas. *Nest* — typical oriole type. *Eggs* — 2 or 3.

354. **Blackheaded Oriole** *Oriolus xanthornus* (Linnaeus)

ACN: Blackhooded Oriole

Plate 45

Syn. No. 958

Local names: *Peelak, Zardak* (Hindi); *Pahari topidar peelak* (Lucknow); *Pirola* (Gorakhpur, U.P.); *Bene bau, Balde pakhi* (Bengali); *Hokhi, Hoti* (Assamese).

Size: Myna. **Field Characters**: Brilliant golden yellow, with jet black head, throat and upper breast. Black in wings and tail. Bright pink bill; crimson eyes. Sexes alike, but black of head duller in female. Young birds have yellow forehead and the black head streaked with yellowish. Singly or pairs, among leafy trees in wooded country. **Distribution**: All India east of a line from Kathiawar through Mount Abu to the Sutlej river, up to 1500 m in the Himalayas; south to Kerala; Andamans. Also Bangladesh; Sri Lanka; Myanmar. Partial local migrant. Three races, differing in size and details of coloration. **Habits**: Arboreal. Not appreciably different from the Golden Oriole's. **Call**: Liquid flute-like calls also very similar. A harsh nasal *kwaak*, commonly heard, and other harsh notes mistakable for a tree pie's. **Food**: Insects, fruits and berries, and flower nectar. **Nesting**: *Season* — April to July; in Sri Lanka October to May. *Nest* — like the Golden Oriole's. *Eggs* — somewhat smaller; more pinkish, less glossy. Orioles of both species, and such other mild-mannered birds as doves and babblers often build in the same tree as holds a nest of the Black Drongo, presumably on account of the protection afforded against marauders by that bold and pugnacious species.

355. **Maroon Oriole** *Oriolus traillii* (Vigors)

Plate 45

Syn. No. 961

Local names: *Melambok* (Lepcha); *Tania pia* (Bhutanese); *Singanee* (Nepali).

Size: Myna+. **Field Characters**: Adult male glossy crimson-maroon with the head, neck and wings black. Tail chestnut-maroon. In female and immature male underparts greyish white streaked with blackish. In overhead flight square-cut claret-crimson tail diagnostic.**Distribution**: Lower Himalayas from Himachal Pradesh eastwards, to Arunachal Pradesh thence south in the hills to Manipur and the Chittagong (Bangladesh). **Habits**: Affects moist deciduous and evergreen forests in the duars, foothills and adjacent plains. Keeps singly or in pairs to the tree tops in high dense forest often in association with drongos, minivets, etc. **Food**: Wild figs, berries, insects, nectar. **Call**: A harsh *kee-ah* followed by a mellow fluty whistle like *pi-lo-lo* resembling Golden Oriole's. Also has a repetoire of other calls including a rattling call like a woodpecker's. **Nesting**: *Season* — April-May. *Nest* — a deep massive cup of woven bast fibres bound with cobwebs and slung in the horizontal fork of a branch 4 to 10 m high in dense jungle. *Eggs* — 2 or 3, pinkish white dotted with black or reddish brown. Both sexes share parental chores.

356. **Black Drongo** or **King Crow** *Dicrurus adsimilis* (Bechstein)

NN: *Dicrurus macrocercus* Vieillot

Plate 46

Syn. No. 962

Local names: *Kolsa, Buchanga* or *Bujanga, Kotwal, Kalkalachi* (Hindi); *Karanjua* (Madhya Pradesh); *Finga* (Bengali); *Kanchh, Kalkanchh* (Kutch); *Kunik, Kalkalachi* (Sind); *Pasala poli gadu* (Telugu); *Kari karuman, Karichan, Karuvattu vali* (Tamil); *Kakka tampuratti, Anaranchi* (Malayalam); *Kosita, Kalo koshi* (Gujarati); *Chosia, Kotwal* (Marathi).

Size: Bulbul±. **Field Characters**: A slim and agile glossy black bird with long, deeply forked tail. Sexes alike. Singly, on the open countryside and about cultivation. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three races, on size differences in wing, tail, and bill. **Habits**: A familiar bird of open country, usually perched on telegraph wires, or attending on grazing cattle. From exposed look-outs it keeps vigilant watch for grasshoppers and other insects. These are pounced upon and carried off, held under foot, torn to pieces and swallowed. It rides on the backs of grazing cattle and takes toll of the insects disturbed by the animals' movements through the grass. Forest fires or fired grass patches invariably attract numbers of drongos for the same reason. Highly beneficial to agriculture by the vast quantities of injurious insects it destroys. **Call**: A variety of harsh scolding or challenging calls are uttered, some closely resembling those of the Shikra hawk. **Food**: Insects; flower nectar also occasionally small birds. **Nesting**: *Season* — principally April to August. *Nest* — a flimsy-bottomed cup of fine twigs and fibres cemented with cobweb; in fork at extremity of branch 4 to 10 m up in large trees preferably standing alone in the open. *Eggs* — 3 to 5 variable; mostly whitish with brownish red spots. Both sexes share all domestic duties and are bold in defence of their nest.

The species name *adsimilis* is now restricted to the African Black Drongo.

357. **Grey** or **Ashy Drongo** *Dicrurus leucophaeus* Vieillot

Plate 46

.Syn. No. 965

Local names: *Neel finga* (Bengal); *Erattai valan kuruvi* (Tamil); *Kakkattampuran* (Malayalam); *Gunkots, Telakots* (Kashmiri).

Size: Black Drongo. **Field Characters**: A slim glossy slate black drongo with long deeply forked tail. Crimson eyes diagnostic. Below dull grey. **Distribution**: *Summer*: Himalayas from Pakistan eastwards to Arunachal Pradesh, NE. hill states; Bangladesh (Chittagong hills). *Winter*: Throughout the subcontinent in well-wooded areas. **Habits**: Similar to the Black Drongo but basically a forest species not found in cultivated open country. Otherwise largely similar in behaviour to the Black Drongo. **Food**: Mainly insects, occasionally reptiles and small birds. Nectar when available. **Call**: Has a varied repetoire including the ability to mimic other birds. **Nesting**: *Season* — April to June in the Himalayas. *Nest* — a neat saucer of lichen and leaves held together by cobwebs and cradled in a horizontal or vertical fork. *Eggs* — 3 or 4, pinkish white in ground colour. Occasionally rich salmon or deep terracotta. Both sexes share parental chores.

358. **Whitebellied Drongo** *Dicrurus caerulescens* (Linnaeus)

Plate 46

Syn. No. 967

Local names: *Pahari Bujanga, Dhapri* (Hindi); *Dhouli* (Bengal); *Nella* or *Konda passala poligadu* (Telugu).

Size: Bulbul±. **Field Characters**: Glossy indigo above, with white belly and under tail-coverts. Long, deeply forked tail. Sexes alike. Singly, in lightly-wooded country. **Distribution**: Practically all India south of a line roughly from Kutch to Garhwal, and as far east as West Bengal and Bihar; Sri Lanka. Plains and hills; to about 2000 m in the Himalayas. Three races, on size and details of coloration. **Habits**: Affects well-wooded deciduous tracts; avoids treeless country as well as humid forest. Partial to bamboo and thin tree jungle, and near shady paths and glades. Makes graceful, agile swoops after winged insects, turning and twisting dextrously in the air and snapping up the quarry in its stride. Often seen as a member of the mixed hunting parties of birds that rove the forest. **Food**: Chiefly insects; also nectar of *Butea, Salmalia* and *Erythrina* flowers. **Call**: Of 3 or 4 pretty whistling notes. An excellent mimic. **Nesting**: *Season* — March to June. *Nest* and *eggs* not appreciably different from those of Black Drongo. The nest site, however, is usually in open deciduous forest.

359. **Crowbilled Drongo** *Dicrurus annectans* (Hodgson)

Plate 46

Syn. No. 970

Local name: *Kak raja sorai* (Assam).

Size: Myna+. **Field Characters**: A glossy jet-black drongo similar to the Black Drongo but with stout bill, less deeply forked tail and stockier build. **Distribution**: Kumaon in U.P. east to the Arunachal Pradesh, in the duars and lower foothills up to *c.* 700 m; hills to the north and south of the Brahmaputra in the NE.; Bangladesh. **Habits**: Inhabits dense evergreen and moist-deciduous forests. Also well-wooded compounds. A low elevation forest drongo.

Uncommon. **Food**: Insects and other small animals. **Call**: Similar to that of Black Drongo. **Nesting**: *Season* — April to June. *Nest* — small, fragile cup of grass, fibres, etc., bound with cobwebs and cradled in the horizontal fork of a slender branch 5 to 12 m above ground. Usually in dense forest. *Eggs* — 3 or 4, variable in colour, usually pale cream streaked with red or purple-brown. Both sexes build the nest. The female incubates.

360. **Bronze Drongo** *Dicrurus aeneus* Vieillot

Plate 46

Syn. No. 971

Local names: *Chhota bhujanga* (Bengal); *Chhota kesraj* (Hindi, Gorakhpur); *Chaptia* (Nepal); *Chinna karung kuruvi* (Tamil); *Lalitakaka* (Malayalam).

Size: Bulbul+. **Field Characters**: A small black forest drongo highly glossed over with bronze-green and blue. More iridescent appreciably smaller and with less deeply forked tail than the Black drongo. Bill broad and flattened like a flycatcher's. **Distribution**: Himalayas from Mussoorie eastwards, throughout eastern India; Eastern Ghats from Bastar to through Shevroy hills to the Western Ghats from Kerala up to the Tapti in Surat Dangs. Bangladesh. **Habits**: Exclusively a forest species preferring foothills up to 2000 m in the Himalayas. Seen in glades and forest edges in moist-deciduous and evergreen biotopes. Parochial. **Food**: Winged insects, usually caught by aerial sallies. **Call**: Wide repetoire of whistles. An excellent mimic. **Nesting**: *Season* — March to June. *Nest* — a shallow cup of bark fragments, leaves, etc., bound with fibres and cobwebs in a horizontal fork in terminal twigs. *Eggs* — 3 or 4, pale pinkish fawn-spotted with reddish or purplish. Both sexes share parental duties.

361. **Haircrested Drongo** *Dicrurus hottentottus* (Linnaeus)

Plate 46

Syn. No. 973

Local names: *Krishnaraj, Kishenraj, Kesraj* (Hindi); *Keshraj* (Bengali); *Kesya, Jobraj, Keshraj, Chibery* (Nepali); *Pavongpho* (Lepcha); *Yentika passala poligadu* (Telugu); *Kinnarikakka* (Malayalam).

Size: Myna±, with longer tail. **Field Characters**: A glossy, spangled, blue-black drongo with longish slightly forked tail, outwardly upcurled at the ends. Sexes alike. **Distribution**: Practically the entire subcontinent — except Pakistan, the dry NW. portions and Sri Lanka — from the Himalayan terai and foothills south to Kerala; in suitable moist-deciduous forest country, plains and foothills, rarely even up to *c.* 2000 m (E. Himalayas). **Habits**: Keeps singly or in pairs and small parties. Forest-haunting, arboreal and largely nectar-eating, the long and noticeably curved bill specially adapted for the function. Local movements largely governed by the flowering seasons of its favourite blossoms such as Silk Cotton or Simul (*Bombax*). **Food**: Flower-nectar and large insects. **Call**: A subdued musical metallic clanging note, constantly uttered. Is also a good mimic of other birds' calls. **Nesting**: *Season* — April to June (north), March-April (south). *Nest* — typical drongo's: a deep flimsy-bottomed saucer of grass, rootlets, etc., in a horizontal fork at the end of a branch. *Eggs* — 3 or 4, variable, creamy to salmon pink, minutely freckled with reddish. Both sexes share all domestic chores. Incubation period unrecorded.

362. **Racket-tailed Drongo** *Dicrurus paradiseus* (Linnaeus)

Plate 46

Syn. No. 977

Local names: *Bhimraj, Bhangraj* (Hindi); *Tinka passala poligadu* (Telugu); *Hati* (Gond); *Pallavpuchha kotwal* (Marathi); *Erattai valan, Kondai korichan* (Tamil).

Size: Myna. **Field Characters**: A glossy black drongo with prominently tufted forehead and two long wirelike spatula-tipped feathers or 'streamers' in the tail. In flight the broadened tips sometimes give the illusion of the bird being pursued by a pair of large bumble bees. Sexes alike. Singly or loose parties, in forest. **Distribution**: Patchy, more or less throughout India south of the Himalayas east of about Mussooree; Bangladesh; Sri Lanka; Myanmar; Andamans and Nicobars. Six geographical races within this area, on comparative sizes of wing, tail, crest and bill. **Habits**: Inhabits forest, preferably moist-deciduous, plains and hills. In the Himalayas to 2000 m. Teak and bamboo jungle in broken foothills country is its typical habitat. Commonly seen in hunting parties associated with tree pies and jungle babblers. Very noisy; has a large repertoire of loud metallic calls and is a convincing mimic besides. Its mimicry often confounds the observer into imagining birds which are not there! Makes an amusing pet and is much sought after by fanciers. **Food**: Moths and large insects; also flower nectar. **Nesting**: *Season* — chiefly March to June, with considerable local variations. *Nest* — a deep flimsy cup of fine twigs, rootlets and fibres bound together and secured to the site with cobweb. Built in the end fork of a branch, 5-17 m (15-50 ft) up, in forest. *Eggs* — 3 or 4, mostly creamy white blotched and speckled with reddish brown.

363. **Ashy Swallow-Shrike** *Artamus fuscus* Vieillot

ACN: Ashy Wood Swallow

Plate 46

Syn. No. 982

Local names: *Tadi ababeel* (Hindi); *Tal charai, Chatak-anjana* (Bengal); *Tad pitta* (Telugu); *Silliangechi pho* (Lepcha); *Tal gas kurulla* (Sinhala); *Madam pura* (Tamil); *Enakkattevan* (Malayalam).

Size: Bulbul+. **Field Characters**: A rather dumpy but sleek slaty grey bird with paler underparts and a pale rump. When perched, the closed wings reach the end of the tail. Heavy, bluish, sparrow-like bill. Sexes alike. In flight very like swallow or crag martin, but heavier in build. Parties, huddled together on bare branches or telegraph wires in open country, or hawking winged insects in graceful sailing flight. **Distribution**: India east and south of a line from Shimla to Godhra (Gujarat); Bangladesh; Sri Lanka; Myanmar. Plains and hills to *c.* 2000 m. Patchy, and locally migratory. **Habits**: Affects open country particularly where dotted with palmyra palms or tall dead trees to serve as look-out posts and foraging bases. While perched, tail constantly moved up and down slowly and twisted sideways. **Food**: Moths, butterflies and winged insects, hawked in the manner of bee-eaters, the birds sailing gracefully back to their perch after each capture, accelerated by intermittent series of rapid beats of the pointed wings. **Call**: A harsh, shrike-like *chek-chek-chek*. **Nesting**: *Season* — April to June. *Nest* — a loosely built cup of grass, roots and fibres up on a horizontal bough or at the base of leaf stalks in a palm tree. *Eggs* — 2 or 3, greenish white, spotted with light brown, chiefly at the broad end.

364. **Spottedwinged Stare** *Saroglossa spiloptera* (Vigors)

ACN: Spotwinged Stare

Plate 47

Syn. No. 984

Local name: *Puli* (Mussoorie, U.P.).

Size: Bulbul±. **Field Characters**: Above brownish grey scalloped with black chin and throat deep chestnut-rufous otherwise rusty white below. Female sooty brown, below fulvous ashy brown scalloped with white. Both sexes with prominent white patch on blackish wings. **Distribution**: Breeds in the Himalayan foothills and duars from Kangra east to Nepal and winters from the plains of NE. India to Bangladesh. **Habits**: Highly gregarious and arboreal. Flocks often pugnacious in keeping other birds off feeding trees. Flocks addicted to sudden short bursts of vigorous flights in between feeding bouts. **Food**: Insects, fruits, and in season predominantly honey. **Call**: Noisy chattering notes when in flock. A pugnacious *chek-chek-chek* while disputing flowers with other bird visitors. **Nesting**: *Season* — April to June. *Nest* — a pad of leaves and rubbish in a natural hollow or barbet hole. *Eggs* — 3 or 4, pale stone or bluish green.

365. **Greyheaded Myna** *Sturnus malabaricus* (Gmelin)

ACN: Chestnut-tailed Starling

Plate 47

Syn. No. 987

Local names: *Pawei* (Hindi); *Desi pawei* (Bengal); *Kat halik* (Assam); *Maina gophu* (Cachar); *Pali palisa* (Telugu); *Charakkili* (Malayalam).

Size: Myna-. **Field Characters**: A small, trim myna, brownish silvery grey above, rusty brown below, with blackish wing quills. Sexes alike. Flocks in thinly-wooded country. **Distribution**: Throughout India east and south of a line from Mount Abu to Dehra Dun, NE.states; Bangladesh; Myanmar; Pakistan; Sri Lanka. Subject to considerable seasonal local migration. The three races that concern us mostly are (1) the greyheaded *malabaricus* (all India-Assam), (2) the whiteheaded *blythii* (Kerala), (3) the whitewinged *nemoricola* (Myanmar). **Habits**: Largely arboreal. Inhabits open, thinly-forested country and the neighbourhood of teak plantations and forest cultivation, both near and away from human habitations. Flight swift, direct, typically starling. **Food**: Ber, lantana, and other berries, banyan and peepul figs, nectar of *Salmalia* and other flowers,, and insects. While feeding, keeps up incessant squabbling and chatter varied by some pleasant musical notes. **Nesting**: *Season* — March to June, varying locally. *Nest* — a collection of twigs, rootlets and grass in an old barbet or woodpecker hole in tree-trunks, 3 to 12 m up. *Eggs* — 3 to 5, pale blue, unmarked. Both sexes share domestic duties, but female alone believed to incubate.

366. **Brahminy** or **Blackheaded Myna**

Sturnus pagodarum (Gmelin)

ACN: Brahminy Starling

Plate 47

Syn. No. 994

Local names: *Popoya myna, Brahmini myna, Puhaia, Kalasir myna* (Hindi); *Monghyr pawi* (Calcutta dealers); *Bamani myna, Harbola* (Bengal); *Pabiyapawi* (U.P.; Mathura); *Papata gorinki* (Telugu); *Papata pariki, Pappatthi nahanavai, Rawanati* (Tamil); *Karimtalaichikkili* (Malayalam); *Martintro* (Portuguese in Sri Lanka); *Nakanam patchi* (Tamil in Sri Lanka).

Size: Myna-. **Field Characters**: A typical myna, grey above reddish fawn below, with glossy black crown and long recumbent crest, and black wing quills. Tail brown with white ending at tip conspicuous when spread out in alighting. Sexes alike. Young birds have crestless sooty brown head, and dull general coloration. Small flocks, in thinly-wooded country. **Distribution**: Practically all India east to Bengal, excepting the most arid and also humid evergreen parts. Commonly up to 1500 m in the Himalayas in summer. Mainly resident, but also partial local migrant. Pakistan (Karachi environs); Sri Lanka (coastal Dry zone). **Habits**: Less arboreal than the Greyheaded Myna. Freely enters gardens, and towns and villages. Partial to moist grassland, and frequently in attendance on grazing cattle, capturing the insects disturbed. **Food**: Chiefly berries, wild figs and insects, but is largely omnivorous. Has several merry creaking or chattering notes. A pleasing little song, in the nature of a soliloquy, is uttered in the breeding season. **Nesting**: *Season* — May to July. *Nest* — a pad of grass, rags, etc., in a hollow in a tree or ruined wall, often even in that of an inhabited house. *Eggs* — 3 or 4, pale blue, unmarked. Both sexes share domestic duties.

367. **Rosy Pastor** or **Rosecoloured Starling**

Sturnus roseus (Linnaeus)

ACN: Rosy Starling

Plate 47

Syn. No. 996

Local names: *Gulabi myna, Tilyar* (Hindi); *Lal myna* (Bengal); *Ganggoya* (Bihar mirshikars); *Wyha, Waheeo, Wyho* (Kutch, Sind); *Pariki pitta, Palisa* (Telugu); *Surai kuruvi, Cholam kuruvi* (Tamil).

Size: Myna. **Field Characters**: A rose-pink myna-like bird with glistening black head, neck and upper breast, wings, and tail. A long, recumbent, pointed crest on crown and nape, sometimes erected. Sexes alike. Young birds and adults in winter plumage (non-breeding) duller and browner. Flocks, about cultivation. **Distribution**: In winter all India; abundant in the northwestern portions and Deccan, diminishing markedly towards its eastern limit in W. Bengal, and in South India; Pakistan. Visits Andamans and Sri Lanka irregularly and sparingly. **Habits**: One of our earliest winter visitors. Begins arriving July-August, departs by mid April. Small flocks or 'clouds' of up to 500 or more individuals, keep in the vicinity of cultivation, particularly *jowari*, and do considerable damage to ripening grain crops. They destroy locusts on a large scale and to that extent are beneficial to agriculture. Banyan and peepul figs, lantana, peeloo (*Salvadora*) and other berries are eaten, as also

nectar of simal flowers (*Salmalia*). The birds do useful service in cross-pollinating these. Males have a chattering, warbling song of harsh as well as pleasant notes uttered chiefly when satiated and resting in a shady tree during the mid day heat. **Nesting**: Breeds in eastern Europe, western and central Asia on stony hillsides and amongst ruins, in May and June. The breeding grounds overlap those of the migratory locust whose hoppers and other stages provide the staple food of hordes of Rosy Pastors and their young from the time the latter hatch out.

368. **Starling** *Sturnus vulgaris* Linnaeus

ACN: Common Starling

Plate 47

Syn. No. 1007

Local names: *Tilyer myna, Kusnai, Tilora, Nakshi tilyer* (Hindi); *Tiley myna* (Bengali); *Tsinihangoor* (Kashmir); *Karo whahio* (Sind).

Size: Myna-. **Field Characters**: Slim, glossy, black myna with metallic green and purple reflection finely stippled with whitish; feathers of head, neck, and breast pointed. **Distribution**: One race (*S. v. indicus*) breeds in Kashmir and winters in north India along with migrants of other four races. Stragglers recorded down to Madras. Pakistan; Bangladesh. **Habits**: Highly gregarious. Flocks of varying size seen grubbing in damp fields, lawns and pasture land often following cattle or the plough. Roosts in enormous congregations. **Food**: Mainly fruits, berries and insects. **Call**: A jumble of chattering clicking and creaky noises mixed with musical whistles. **Nesting**: *Season* — May and June in Kashmir. *Nest* — an untidy loosely knit pad of grass and feathers in woodpecker holes, holes in earth banks, under rafters of houses. Sometimes on trees. *Eggs* — 5 or 6, pale skim-milk blue. Both parents share parental duties.

369. **Pied Myna** *Sturnus contra* Linnaeus

ACN: Asian Pied Starling

Plate 47

Syn. No. 1002

Local names: *Ablak* or *Ablaki myna* (Hindi); *Guye salik* (Bengali); *Siroli myna* (Bihar); *Kan kurika* (Nowgong, Assam); *Venda gorinka* (Telugu).

Size: Bulbul+; Common Myna-. **Field Characters**: A trim black-and-white myna with orange orbital skin, and deep orange-and-yellow bill. Sexes alike. Parties and flocks about villages and cultivation. **Distribution**: India east of a line from Ambala (Haryana) to Hyderabad and Masulipatam (Andhra); Bangladesh; Myanmar. Extending westwards into Pakistan in recent years. The two races that chiefly concern us are the nominate *contra*, and the NE. India *sordidus*. They are differentiated on details of coloration. **Habits**: Rarely met with away from the neighbourhood of villages, towns, and cities where refuse dumps afford attractive feeding. Commonly seen in attendance on grazing cattle, particularly on moist or marshy environs of village tanks. **Call**: A number of pleasant high-pitched notes, some reminiscent of snatches from the flight song of the finch-larks. **Nesting**: *Season* — March to September. *Nest* — large, untidy, globular, of twigs, leaves, grass and rubbish, with a lateral entrance. In branch of mango or similar tree 5 to 10 m up, sometimes 3 or 4 nests in the same tree. *Eggs* — 4 or 5, glossy blue. Both sexes share in building the nest and care of the young.

370. **Indian Myna** *Acridotheres tristis* (Linnaeus)

Plate 47

Syn. No. 1006

Local names: *Desi myna* (Hindi); *Hor* (Kashmiri); *Salik, Bhat salik* (Bengali); *Salik sorai, Ghor salika* (Assamese); *Dao myna* (Cachari); *Bemni, Saloo* (Chota Nagpur); *Gulgul* (Madhya Pradesh); *Shale, Salonki* (Marathi); *Kabar* (Gujarati); *Gorwantera* (Kannada); *Nahanavai* (Tamil); *Goranka* (Telegu); *Kavalamkili, Matatta* (Malayalam).

Size: Bulbul+, Pigeon- (= 22.5 cm). **Field Characters**: A familiar perky, well-groomed dark brown bird with bright yellow bill, legs, and bare skin round eyes. A large white patch in wing conspicuous in flight. Sexes alike. Pairs or parties, about human habitations and on country-side. **Distribution**: Throughout the Indian Union up to 3000 m in the Himalayas in summer; Bangladesh; Pakistan; Sri Lanka; Myanmar. Sri Lanka birds (*melanosternus*) are darker than the Indian *tristis*. **Habits**: A confirmed associate of man, following wherever he opens up new habitations. Omnivorous. Eats fruits, insects, kitchen scraps. Follows the plough for earthworms, etc., and attends on grazing cattle for the grasshoppers disturbed, side-hopping jauntily, and springing up in the air to capture them. Has a variety of sharp calls and chatter: a loud, scolding *rdio-radio-radio*, and *keek-keek-keek, kok-kok-kok, chur-chur*, etc., uttered with the plumage frowzled and a ludicrous bobbing of the head. **Nesting**: *Season* — April to August. *Nest* — a collection of twigs, roots, paper and rubbish in a hole in a tree, wall or ceiling. *Eggs* — 4 or 5, glossy blue. Two broods often raised in succession. Both sexes share domestic duties.

371. **Bank Myna** *Acridotheres ginginianus* (Latham)

Plate 47

Syn. No. 1008

Local names: *Ganga myna* (Hindi); *Gang salik* (Bengali); *Barad myna* (Bihar, mirshikars); *Bardi myna* (Nepal); *Lali* (Sind); *Daryla myna* (Uttar Pradesh).

Size: Myna-. **Field Characters**: Similar to the Indian Myna, but pale bluish grey instead of brown. Naked skin round eyes brick-red instead of yellow. Sexes alike. Flocks, in open country and around human habitations. **Distribution**: Sind in Pakistan, and the greater part of northern India, east to Bangladesh, south to about the latitude of Bombay. Partial local migrant. **Habits**: Similar to those of the Indian Myna. Railway stations are particularly favoured. Saunters along confidingly on platforms, in and out of the passengers' feet and baggage, picking up bits of food. Haunts municipal refuse dumps for scraps and titbits and attends on grazing cattle for insects. Voice somewhat softer than Indian Myna's. **Nesting**: *Season* — May to August. *Nest* — a pad of grass and rubbish stuffed in weepholes of revetments of bridges or in self-excavated tunnels in earth-cuttings; often in colonies. *Eggs* — 3 to 5, glossy pale blue.

372. **Jungle Myna** *Acridotheres fuscus* (Wagler)

Plate 47

Syn. No. 1010

Local names: *Pahari myna, Jangli myna* (Hindi); *Jhont salik, Jungli salik* (Bengali); *Vana kabar* (Gujarati).

Size: Same as Indian Myna. **Field Characters**: Very like Indian Myna but more *greyish* brown overall; with similar white wing patches, conspicuous in flight. Absence of bare bright yellow skin round eyes, and the bushy upstanding tuft of feathers on forehead are diagnostic points. Pairs or parties on well-wooded countryside; seldom about human habitations. **Distribution**: Practically the entire Indian Union. Bangladesh and Pakistan up to 2500 m; Myanmar; northern Sri Lanka. Resident but curiously local and patchy. Two races; northern *fuscus* more slaty grey on upperparts, with bright yellow iris; southern *mahrattensis* less grey on upperparts with bluish white iris. Other races extend the species to China and Malaysia. **Habits**: Less sophisticated than Indian Myna and usually keeps away from habitations. Attends grazing cattle, hunting the grasshoppers and other insects flushed by their movements. Largely omnivorous. Also eats wild figs and berries, and flower nectar. **Call**: Indistinguishable from Indian Myna's, but the characteristic *keek-keek-kok-kok,* etc., (nuptial 'song') of the latter has not been recorded. **Nesting**: *Season* — mainly February to July. *Nest* — a collection of twigs, roots, grass and rubbish stuffed in a tree-hole (woodpecker's) 3-6 m up, or in the weep-holes of a roadside revetment. *Eggs* — 3 or 4, glossy turquoise blue.

373. **Goldcrested Myna** *Mino coronatus* (Blyth)

NN: Goldencrested Myna *Ampeliceps coronatus* Blyth

Plate 47

Syn. No. 1014

Local name: *Dao myna raja* (Cachari).

Size: Myna-. **Field Characters**: A dainty glossy black myna with golden yellow crested forehead, crown and throat and a naked orange-yellow patch around eye. A broad white and yellow band on wing prominent in flight and diagnostic. **Distribution**: Resident uncommon. North Cachar in Assam and Manipur. Likely to occur in Nagaland, Mizoram, Tripura and Bangladesh. **Habits**: Occurs in moist-deciduous and semi-evergreen forests. Seen in open forests and cultivation with tall trees. Keeps in pairs or small parties. **Food**: Largely fruits; also insects. **Call**: resembles the hill myna's. **Nesting**: *Season* — April-May. *Nest* of grass in a tree hole. *Eggs* — 3, blue.

374. **Hill Myna** *Gracula religiosa* Linnaeus

Plate 47

Syn. No. 1015

Local names: *Pahari myna* (Hindi, Bengali); *Dao myna, Myna gashim* (Cachari).

Size: Myna+. **Field Characters**: A glossy jet black myna with a conspicuous white patch on the wings, yellow bill and legs, and bright orange-yellow patches of naked skin and wattles on the head. Sexes alike. Pairs or noisy flocks in hill forest. **Distribution**: Restricted

and patchy. In India proper in three distinct areas: (1) Himalayan foothills to about 1000 m elevation from Almora to Arunachal Pradesh, (2) Chota Nagpur, Orissa and SE. Madhya Pradesh, (3) the Western Ghats north to about Bombay. Also the Andamans and Nicobars. Sri Lanka, Bangladesh and Tenasserim (South Myanmar). Four races, mainly on overall size and differences in arrangement of head wattles. **Habits**: Arboreal. Pairs or noisy flocks in well-wooded country feeding on the various wild figs in company with green pigeons, hornbills and other fruit-eating birds. Has habit of settling on bare tops of dead trees in forest clearings at sunset and uttering its loud, sharp, creaky shrieks. In flight the wings produce a metallic whirring noise, as in green pigeons. An accomplished mimic and talker, and much prized as a cage bird. **Nesting**: *Season* — March to October. *Nest* — a collection of grass, leaves, feathers, etc., stuffed into natural hollows in lofty tree-trunks in forest, usually 10 to 25 m up. *Eggs* — 2 or 3, deep blue sparsely spotted and blotched with reddish brown or chocolate.

375. **Green Magpie** *Cissa chinensis* (Boddaert)

Plate 48

Syn. No. 1023

Local names: *Sirgoom* or *Sirgang* (Bengal); *Dhori koili* (Paharia in Sikkim); *Chap ling pho* (Lepcha); *Rab ling chapa* (Bhutanese); *Telpili* (Daffa); *Lil sorai* (Assamese); *Dao gatang lili* (Cachari).

Size: Myna+ with a long tail. **Field Characters**: A bright leaf green long-tailed bird with conspicuous red wings and a broad black band running backward through eye to meet on nape. Black-and-white tipped graduated tail conspicuous in flight. Bill and legs bright coral red. **Distribution**: Himalayas from Garhwal eastward to the hills of north eastern India as well as the terai, bhabar and duars forests. **Habits**: Singly or in pairs in tropical and subtropical wet evergreen secondary jungles in nullahs. Also bamboo forests. Seen invariably in association with foraging flocks of laughing thrushes and drongos. **Food**: Small animals, large insects. **Call**: A loud discordant quickly repeated *peep-pee*. Also rich melodious whistles, a racous mewing note. A very good mimic. **Nesting**: *Season* — April to July. *Nest* — a well-made massive platform of twigs with a shallow cup lined with fine roots, etc. *Eggs* — 4 to 6, greyish or pale greenish blotched and freckled with reddish brown.

376. **Yellowbilled Blue Magpie** *Cissa flavirostris* (Blyth)

NN: Goldbilled Blue Magpie *Urocissa flavirostris* (Blyth)

Plate 48

Syn. No. 1025

Local names: *Hot razd* (Kashmiri); *Chainchal* (Kangra); *Lam puchhari* (Nepalese); *Nilkanth* (Hindi).

Size: Pigeon±. **Field characters**: A splendid purplish blue bird with black head, neck and breast. White patch on nape and whitish underparts. Tail long, graduated black and white tipped long streamers. Bill Yellow. Legs orange. **Distribution**: Himalayas from Hazara in Pakistan to Arunachal Pradesh. Two races. The closely allied Redbilled Blue Magpie *Cissa erythrorhyncha* is more or less sympatric from Himachal Pradesh to Garhwal and Kumaon. **Habits**: Occurs in the wet temperate zone with some seasonal altitudinal movements from 1000 to 3000 m. Sociable, seen in small parties of 4 to 10 individuals in the company of other species. Usually seen in the same patch of forests. Feeds in open glades, tea gardens,

etc. Mainly arboreal but often descends to the ground for feeding. **Food**: Omnivorous though mainly animal. **Call**: Has varied repatoire of loud, harsh, calls and whistles and is an accomplished mimic of the calls of other species. **Nesting**: *Season* — May-June. *Nest* — a shallow cup of twigs near the top of a leafy tree. *Eggs* — 3 or 4, cream coloured. Both sexes share parental duties.

377. **Tree Pie** *Dendrocitta vagabunda* (Latham)

ACN: Rufous Tree Pie

Plate 48

Syn. No. 1031

Local names: *Mahalat* (Hindi); *Kotri, Taka chor* [= stealer of rupee coins], *Handi chacha* (Bengali); *Kola khoa* (= plantain-eater - Dibrugarh, Assam); *Gokurayi, Kanda kati gadu* (Telugu); *Val kakai* (Tamil, Madurai dist.)

Size: Myna±; tail 30 cm (12 in.) long. **Field Character**: A long-tailed chestnut-brown bird with sooty head and neck. Black-tipped grey tail and greyish white wing patches conspicuous in flight. Flight undulating — a swift noisy flapping followed by a short glide on outspread wings and tail. Sexes alike. **Distribution**: The Indian Union; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. Five races, on size and coloration details. **Habits**: Frequents wooded country and scrub jungle. Freely enters residential compounds and gardens. Usually noisy pairs or family parties. Has a large variety of calls, some loud, harsh and guttural, others pleasing and melodious; one of the commonest of the latter being a clear *bob-o-link* or *kokila*. Omnivorous like the crows and will take fruits, insects, lizards, frogs, centipedes and even carrion, in addition to the eggs and helpless young of birds and rodents. Tree Pies are regular members of the mixed hunting associations of birds that move about in forest. **Nesting**: *Season* — February to July, chiefly March to May. *Nest* — like the crows' but deeper and often of thorny twigs, well lined with rootlets. Concealed in foliage of moderate-sized tree. *Eggs* — 4 or 5, variable in shape and colour; most commonly pale salmon-white splashed and streaked with bright reddish brown. Both sexes share parental duties.

378. **Whitebellied Tree Pie** *Dendrocitta leucogastra* Gould

Plate 48

Syn. No. 1036

Local names: *Neela val kakka* (Tamil); *Katu nali* (Malayalam).

Size: Myna+; with long tail. **Field Characters**: Distinguished from the common Tree Pie by chestnut back and pure white hindneck, rump and underparts. A large white patch on the black wings, and long graduated grey-and-black tail conspicuous in undulating flight. Sexes alike. **Distribution**: Resident; local and patchy. The Sahyadri (W. Ghats) heavy-rainfall strip from Goa and Belgaum southward through W. Karnataka, Nilgiri Hills and Kerala; foothills and up to *c.* 1500 m. Not Sri Lanka. Confined to evergreen biotope: dense forest, cardamom sholas, secondary jungle on abandoned forest clearings, etc. **Habits**: Very similar to those of the more familiar Tree Pie. Pairs or family parties, commonly associated with the mixed itinerant bird flocks; almost unfailingly with Racket-tailed Drongo. **Food**: Omnivorous. Fruits, large insects, small birds and rodents, and other living things. **Call**: Various notes, harsh as well as musical. In courtship a throaty *chuff-chuff-chuff* with ludicrous bowing and jumping stiffly up and down on the perch like a clockwork toy,

forepart of body depressed and tail half-cocked. **Nesting**: *Season* — February to April. *Nest* — a stick platform like a crow's, the inner cup lined with soft rootlets, etc. *Eggs* — 4 or 5, very variously coloured; creamy, reddish white or greenish white, blotched and streaked with shades of brown and lilac, the markings often confined to the broader end in a ring or cap.

379. **Himalayan Tree Pie** *Dendrocitta formosae* Swinhoe

ACN: Grey Tree Pie

Plate 48

Syn. No. 1037

Local name: *Kokia kak* (U.P., Mussoorie).

Size: Myna±; with a long tail. **Field Characters**: A typical, longtailed, slender, grey and sooty brown tree pie with the elongated central tail feathers ashy grey and broadly black-tipped. White wing patch and chestnut under the tail particularly conspicuous in flight. Sexes alike. **Distribution**: The foothills of the Himalayas, eastern India, Eastern Ghats of Orissa and north Andhra Pradesh, Bangladesh, Pakistan. **Habits**: Seen in small parties of 4 or 5 birds or loose flocks of up to 20 birds in tall forests, abandoned cultivation. Feeds on the ground in harvested fields. **Food**: Fruits, nectar, insects and small animals. **Call:** of the same pattern as of the Common Tree Pie but distinctive and unmistakable. **Nesting**: *Season* — April to July. *Nest* — similar to the crows', a platform of twigs lined with finer material. *Eggs* — 3 or 4, rarely 5, pale blue or yellowish stone blotched with brown. Both sexes share parental duties.

380. **House Crow** *Corvus splendens* Vieillot

Plate 48

Syn. No. 1048

Local names: *Kowwa, Desi kowwa* (Hindi); *Kaola* (Marathi); *Kagdo* (Gujarati); *Kag, Kak* (Bengali); *Pat kaori* (Assamese, Nowgong); *Manchi kaki* (Telugu); *Nalla kaka, Maniyan kakai* (Tamil).

Size: Pigeon; *c.* 42 cm (17 in.). **Field Characters**: Grey neck and smaller size distinguish it from the all black Jungle Crow. Sexes alike. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Chiefly plains, but also many hill stations. Four geographical races, based largely on paleness or darkness of the grey collar; palest in Sind and Kashmir; darkest (blackish) in Myanmar. **Habits**: Perhaps the most familiar bird of Indian towns and villages. Lives in close association with man and obtains it livelihood from his works. Audacious, cunning and uncannily wary. Has no particular food preferences. Will eat almost anything: dead sewer rat, offal, carrion, kitchen scraps and refuse, locusts, termites, fruit, grain, and eggs or fledgling birds pilfered from nests. A useful scavenger but also a great bully and therefore a serious menace to defenceless ornamental bird species in urban areas. Has community roosts in selected trees or groves where large numbers collect every night. **Nesting**: *Season* — principally April to June. *Nest* — a platform of twigs frequently intermixed with iron wire, with a cup-like depression lined with tow, coir fibres, etc., 3 m or more up in a tree; sometimes several nests in the same tree. *Eggs* — 4 or 5, pale blue-green, speckled and streaked with brown. Both sexes share incubation and nest-feeding. The Koel commonly lays its eggs in crows' nests.

381. **Jungle Crow** *Corvus macrorhynchos* Wagler

Plate 48

Syn. No. 1054

Local names: *Kala kowwa, Pahari kowwa, Jangli kowwa, Dhal kowwa* (Hindi); *Kagh* (Bihar); *Dom kaula* (Marathi); *Girnari kagdo* (Gujarati); *Mala kaki* (Telugu); *Andan kakai, Karung kakai* (Tamil); *Tonnan kakka, Veli kakka* (Malayalam); *Kaka, Kaputa* (Sinhala); *Kaka, Kakam* (Tamil, Sri Lanka).

Size: House Crow+; Kite-. **Field Characters**: A glossy jet black crow with a heavy bill and deep and hoarse 'caw'. Sexes alike. Singly, pairs or loose parties. **Distribution**: The Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Four geographical races, mainly on size differences of wing and bill. **Habits**: Chiefly a bird of the countryside, but small numbers also in towns and villages. Associates with vultures to feed on carrion. Its movements often lead to discovery of tiger or panther kills hidden in the jungle which the bird is quick to locate. Like House Crow is omnivorous, and highly destructive to eggs and chicks of other birds including domestic poultry, and to young of small mammals. **Nesting**: *Season* — normally December to April in peninsular India; March to May in northern India, NE. India and Myanmar. *Nest* and *eggs* like the House Crow's; the latter slightly larger. Both sexes share parental duties. Nests frequently parasitized by Koel.

382. **Raven** *Corvus corax* Linnaeus

ACN: Common Raven

Plate 48

Syn. No. 1059

Local names: *Domkak* (Hindi); *Doda kaang* (Punjab); *Takru kaang* (U. Sind).

Size: Kite+. **Field Characters**: A larger and heavier version of the Jungle Crow, jet black with a massive bill. In flight large size, peculiar creaking noise of wing quills and wedge shaped tail, distinctive. Sexes alike. **Distribution**: Higher Himalayas in summer. Seen during winter in Punjab, Rajasthan, Kutch (Gujarat); stragglers to Delhi, Vidarbha (Maharashtra), Mhow (M.P.). **Habits**: Usually seen in pairs, feeds communally with other scavengers. An opportunistic feeder. Roosts communally. Monogamous, pairing for life. Long lived. One in captivity lived for over 70 years. **Food**: Omnivorous. **Call**: A deep hoarse *pruk pruk* reminiscent of wooden cow-bell. **Nesting**: *Season* — December to March. *Nest* — a platform of sticks on the top of a tree or on a cliff face. *Eggs* — 3 to 6, pale bluish green spotted or streaked with brown. Both sexes share parental duties.

383. **Pied Flycatcher-Shrike** *Hemipus picatus* (Sykes)

ACN: Barwinged Flycatcher-Shrike

Plate 49

Syn. No. 1065

Local names: *Asurappottan* (Malayalam); *Kalopeeth kabaro latoro* (Gujarati); *Chhota kala latora* (Hindi).

Size: Sparrow±. **Field Characters**: A small black-and-white flycatcher-like bird with a characteristic hunchbacked profile when perched. In female, black portions replaced by sooty brown. Pairs or small parties in evergreen and moist-deciduous forest country.

Distribution: Himalayas from Garhwal to Arunachal Pradesh (including Nepal, Sikkim, Bhutan), foothills and up to *c.* 2500 m; Bangladesh. All peninsular India south of Narbada river, and Sri Lanka; foothills and up to *c.* 2000 m. Three races: in northern *capitalis* male has black head, brown back; in southern *picatus*, black head, black back. Females of the two indistinguishable; both brown-headed, brown-backed. In Sri Lanka, *leggei* both sexes like male *picatus*, with head as well as back black. **Habits**: In habits and behaviour resembles both wood-shrikes' (*Tephrodornis*) and flycatchers'. The members of a party follow one another from tree to tree searching among the leaves for their insect food and making nimble aerial sallies after winged quarry, turning and twisting in pursuit. **Call**: Feeble squeaky notes *whi-riri, whi-riri, whi-riri*, etc., frequently uttered. **Nesting**: *Season* — overall March to June with local variations. *Nest* — a shallow saucer of rootlets, moss, etc. bound on the outside with cobwebs and attached on the upper surface of a branch 3 to 10 m up. *Eggs* — 2 or 3, pale greenish white, blotched with inky black and with underlying marks of grey.

384. **Large Wood Shrike** *Tephrodornis virgatus* (Temminck)

Plate 49

Syn. No. 1067

Local names: *Pahari latora* (Hindi); *Asurakkatan* (Malayalam).

Size: Myna. **Field Characters**: Crown and nape ashy grey, back and square-cut tail ashy brown, the last tipped blackish and rufous. A broad black band through eye to the white ear-coverts. Beak stout, strongly hooked and notched. Female with crown concolorous with back and eye-band brown instead of black. Separated from the Common Wood Shirke by its larger size and brown rufous-tipped outer tail feathers. **Distribution**: Two races: the northern race distributed from western Nepal eastwards to Arunachal Pradesh, Nagaland and Manipur, south to Bangladesh, Bihar, Orissa, E. Ghats and NE. Andhra Pradesh. The Western Ghats race from Narbada (Gujarat) south to Karnataka, Kerala and the adjacent hills of Tamil Nadu. Not Sri Lanka. **Habits**: Occurs in evergreen, moist-deciduous and other well-wooded habitats. Arboreal. Seen in small flocks often as part of mixed hunting parties, flitting from branch to branch, making aerial sallies after insects. **Food**: Large insects and caterpillars. **Call**: The northern race has harsh notes resembling shrikes, also a musical, quickly repeated *kew-kew-kew-kew*. The Western Ghats race has a loud, clear, musical *witoo-witoo-witoo* often punctuated by a harsh *chack* or *chir*. **Nesting**: *Season* — December to June. *Nest* — shallow, beautifully interwoven saucer of grass, roots, etc., cemented with cobweb, built on horizontal forks and hard to find. *Eggs* — 2 to 4, white tinged with green. Male assists in incubation.

385. **Common Wood Shrike** *Tephrodornis pondicerianus* (Gmelin)

Plate 49

Syn. No. 1070

Local names: *Keroula* (Hindi); *Tarti-tuiya* (U.P.); *Tentha, Tenthaca* (Nepal); *Chundukka* (Bengal); *Asurattan* (Malayalam); *Ulapitta* (Telugu).

Size: Bubul±. **Field Characters**: A plain greyish brown bird with a dark stripe below the eye and a distinct whitish supercilium. Hook-tipped shrike bill; short square tail. Sexes alike. Pairs or parties, in light jungle. **Distribution**: Practically the entire Indian Union south of the Himalayan foothills; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three races,

chiefly on depth of coloration. **Habits**: Affects scrub-and-bush country and light deciduous forest. Commonly seen in gardens, among roadside trees and in groves of babool, neem, etc., around cultivation and villages. Parties hunt amongst foliage often in mixed company of other small birds, and follow one another gliding from tree to tree, calling in rich liquid whistling notes — *weet-weet* followed by a quick interogativer *whi-whi-whi-whi?*. **Food**: Moth, beetles, caterpillars, etc., captured in trees; occasionally in the air like a flycatcher; seldom on ground as in true shrikes. **Nesting**: *Season* — between February and September, mainly March/April. *Nest* — a neat cup of soft bark and fibres cemented together and draped exteriorly with cobwebs and spiders' egg cases, in fork of leafless saplings normally under 6 m. *Eggs* — 3, pale greenish grey, speckled with purple-brown more densely at broad end to form a ring. Both sexes share parental duties.

386. **Large Cuckoo-Shrike** *Coracina novaehollandiae* (Gmelin)

NN: *Coracina macei* (Lesson)

Plate 49

Syn. No. 1072

Local names: *Kasya* (Hindi); *Khaki popiya* (U.P.); *Kabasi* (Bengal); *Pedda akurai* (Telugu); *Moto kasio* (Gujarati); *Bahram* (Saugar dist., M.P.).

Size: Pigeon-; slimmer. **Field Characters**: A rather thick-set grey bird, whitish from breast down with a broad dark eye-streak. Wings and tail black. Eye-streak less prominent in female and her underparts barred grey and white. Pairs, in foliage canopy, in wooded country. **Distribution**: The entire Indian Union (excepting East Punjab and Rajasthan) from about 1300 m in the Himalayas; Bangladesh; Sri Lanka; Myanmar. Not Pakistan. Four races. **Habits**: Arboreal. Affects deciduous forest as well as secondary evergreen jungle, plains and hills alike. Partial to groves of trees about villages and cultivation, and to orchards and forest plantations. Pairs or family parties fly from tree-top to tree-top in irregular follow-my-leader fashion uttering their distinctive shrill but pleasant double-noted call *ti-eee* from time to time. **Food**: Large insects captured in the foliage, as well as berries and banyan, peepul and other wild figs. **Nesting**: *Season* — mainly May to October. *Nest* — a shallow cup of fine twigs bound together with cobweb and sparsely draped exteriorly with lichen and pieces of bark. Placed in fork of outhanging branch up in tall trees. *Eggs* — 3, pale green with scanty blotches of dark brown and purple.

387. **Blackheaded Cuckoo-Shrike** *Coracina melanoptera* (Rüppell)

Plate 49

Syn. No. 1078

Local names: *Jangli kasya* (Hindi); *Chhota bahram* (Saugar dist., M.P.); *Chinna akurayi* (Telugu); *Kala mathano kasio* (Gujarati); *Karimtoppi* (Malayalam).

Size: Bulbul±. **Field Characters**: *Male*: ashy grey with black head, wings and tail, and whitish underparts. *Female*: head grey; underparts barred black and white. Pairs, in open, lightly-wooded country. **Distribution**: India south and east of a line from Mount Abu through Sambhar (in Rajasthan) to Kangra in Himachal Pradesh. Also parts of NE. India, Bangladesh, and Sri Lanka. Plains and up to about 2000 m elevation. Two races. **Habits**: Usually seen in pairs; commonly in association with the itinerant mixed hunting parties of insectivorous

birds. Partial to mango, neem, tamarind and other leafy trees growing near villages. **Food**: Chiefly insects, but also berries such as lantana. Method of capturing insects similar to the minivets'. Normally silent. In breeding season male delivers a pretty, clear, whistling song of several notes ending in a quick-repeated *pit-pit-pit*. **Nesting**: *Season* — overall March to August; earlier in Sri Lanka than in the Deccan. *Nest* — a shallow cup of twigs and rootlets bound together with cobweb; secured on upper surface of bough, usually under 5 m. *Eggs* — 2 or 3, greenish white with longitudinal blotches of brown.

388. **Scarlet Minivet** *Pericrocotus flammeus* (Forster)

Plate 49

Syn. No. 1080

Local names: *Pahari bulalchashm* (Hindi); *Kesariyo rajalal* (Gujarati); *Mambala kuruvi, Pottkuruvi* (Tamil); *Gini-kurulla* (Sinhala); *Teekkuruvi* (Malayalam).

Size: Bulbul-. **Field Characters**: Adult male glistening black and orange-red to deep scarlet. Female and young male grey and olive-yellow above, yellow below with two yellow bars in the black wings. Flocks, in foliage canopy of trees. **Distribution**: Practically the entire Indian Union up to about 2000 m in the Himalayas; Bangladesh; Sri Lanka; Myanmar. Not Pakistan. Five races within these limits. **Habits**: Exclusively arboreal. In winter flocks of 30 or more. Affects well-wooded country and evergreen forest. Flits restlessly amongst insects, and following one another from tree-top to tree-top. **Food**: Insects and their larvae; sometimes captured in air like flycatcher. **Call**: A pleasant whistling *whee-tweet* or *whiriri, whiriri*, etc., uttered in flight as well as from perch. **Nesting**: *Season* — principally April to July. *Nest* — a neat cup of rootlets and bast fibres bound with cobwebs and bedecked with bark, moss and lichens. Secured on upper surface of a horizontal branch, 3 to 12 m. *Eggs* — 2 to 4, pale sea-green, spotted and blotched with dark brown and lavender. Both sexes share parental duties.

389. **Longtailed Minivet** *Pericrocotus ethologus* Bangs & Phillips

Plate 49

Syn. No. 1085

Size: Bulbul-. **Field Characters**: *Male*: slim, glossy black and scarlet with a large inverted U-shaped scarlet patch on the black wing, black throat and black-and-scarlet tail. *Female* with yellow throat and crimson of the male replaced by yellow. **Distribution**: A summer breeding visitor to the Himalayas at elevations from 1200 to 3000 m. Winters in the plains with stragglers to Gujarat and Maharashtra. Bangladesh; Pakistan. **Habits**: Affects open forest and in the winter wooded compounds, mango groves, etc. Gregarious when not breeding. A conspicuous bird of the Himalayas. Strictly arboreal. **Food**: Insects and buds of acacia and fruits. **Call**: A finch-like *djib djib* and a tit-like chatter when flying along the tree tops. **Nesting**: *Season* — April to June. *Nest* — a beautiful cup of grass coated with cobweb and lichen placed at the extremity of a high horizontal branch. *Eggs* — 3 or 4, white tinged with green, spotted and blotched with brown. Both parents share parental duties.

390. **Rosy Minivet** *Pericrocotus roseus* (Vieillot)

Plate 49

Syn. No. 1089

Local names: *Dao ribi* (Cachari).

Size: Bulbul-. **Field Characters**: *Male* distinguished from other minivets by the scarlet in wings and tail being replaced by deep pink, upper parts ashy brown and the underparts from chin to vent being rosy pink. The female is distinguished from other female minivets by the olive or olive-yellow rump as against bright yellow in other minivets. **Distribution**: The Himalayas from west to east to Arunachal Pradesh and the hills of Nagaland and Manipur. Winters in the Peninsula. **Habits**: Occurs in deciduous or evergreen forests, lightly wooded country and gardens. Arboreal and rather sluggish. **Food**: Insects. **Call**: A squeaky whistling *whiririri* similar to the call of the Pied Flycatcher Shrike. **Nesting**: Breeds in the Himalayas. *Season* — May and June. *Nest* — a deep cup of fibre coated with cobwebs and lichen. *Eggs* — 3 or 4, nearly white marked with blotches of brown. Nest building chiefly by the female. The male keeps her company.

391. **Small Minivet** *Pericrocotus cinnamomeus* (Linnaeus)

Plate 49

Syn. No. 1093

Local names: *Bulalchashm, Rajalal, Saheli* (Hindi); *Kunkumpu jitta* (Telugu); *Techinnam* (Malayalam); *Kos-kurulla, Batugene-kurulla* (Sinhala).

Size: Sparrow-. **Field Characters**: Adult male chiefly black, grey and orange-crimson. Female and young male with no black in head and with yellow largely replacing the red. Flocks, in foliage canopy of trees. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and lower hills. Five races, on shades of coloration. **Habits**: Exclusively arboreal. Affects gardens, groves and light deciduous jungle in flocks, particularly large in winter when also the sexes tend to keep segregated. **Food** and feeding habits similar to those of the Scarlet Minivet. **Call**: A feeble musical *swee-swee* uttered both whilst hunting and on the wing. **Nesting**: *Season* — between February and September, varying locally. *Nest* — a pretty little shallow cup of fibres, etc., coated exteriorly with cobweb and lichens. Attached to upper surface of branch, often high up. *Eggs* — 3, pale greenish white or creamy buff stippled with reddish brown, more densely and in a ring round the broad end. Both sexes share parental duties.

392. **Whitebellied Minivet** *Pericrocotus erythropygius* (Jerdon)

Plate 49

Syn. No. 1096

Local names: *Kabao rajalal* (Gujarati); *Safed rajalal* (Hindi, Madhya Pradesh).

Size: Sparrow-; with a longer tail. **Field Characters**: *Male* distinguished from other minivets by its pied coloration, white wing-patch, V-shaped when seen from the rear. Rump and breast orange-red. Tail black and white. Below white. *Female* black replaced by grey. Forehead and lower plumage white, rump white and orange. **Distribution**: Peninsular India southeast of a line from Ambala to Belgaum and Deccan in the south, east to west Bihar,

southeast Bengal. **Habits**: Affect semi-desert and open grassy forests in the arid areas. Less arboreal than other minivets. Keeps in small parties of six to eight. Flight similar to the dipping flight of wagtails. **Food**: Insects and spiders. **Call**: A whistle like the *tseep tseep* of wagtails. **Nesting**: *Season* — June to October. *Nest* — a little fibre cup coated with down and cobwebs in vertical or horizontal fork of a bush. *Eggs* — 3, greyish white covered with blotches of grey brown. Female alone incubates.

393. **Iora** *Aegithina tiphia* (Linnaeus)

Plate 50

Syn. No. 1100

Local names: *Shaubeegi* (Hindi); *Patsu-jitta* (Telugu); *Pachapora, Sinna mampala-kuruvi* (Tamil).

Size: Sparrow. **Field Characters**: A black and yellow tit-like bird with two white wing bars. Female, and male in non-breeding plumage, largely greenish yellow with whitish wing bars, the latter differentiated by black tail. Pairs, in gardens, groves and light forest. **Distribution**: Along the Himalayas from NWFP (Pakistan) to Arunachal Pradesh, and the rest of India east of a line from Gulf of Cambay through Mount Abu to Gurdaspur (Punjab); Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and up to about 1000 m. Five races, on differences in details of coloration. **Habits**: Arboreal. Affects gardens in towns, groves of trees (mango, tamarind, neem, etc.) on village outskirts, and secondary jungle. Hops from twig to twig, frequently clinging on sideways or upside down in search of insects among the foliage. The birds keep in touch by sweet long-drawn musical whistles and short chirrups. Its Hindi name *Shaubeegi* is onomatopaeic. During courtship display the male springs up into the air with plumage fluffed out and with a variety of sibilant whistles parachutes down in a spiral back to his perch, showing off his colours to best advantage. **Food**: Insects, their eggs and larvae. **Nesting**: *Season* — chiefly May to September with local variations. *Nest* — a compact cup of grasses, neatly and copiously plastered with cobwebs, in a crotch or fork of twig 2 to 4 m up. *Eggs* — 2 to 4, pale pinky white, blotched with purplish brown. Both sexes share parental duties.

394. **Marshall's Iora** *Aegithina nigrolutea* (Marshall)

ACN: Whitetailed Iora

Plate 50

Syn. No. 1102

Local names: *Shaubeega* or *Shaubeegi* (Hindi); *Fatik-jal* (Bengali); *Barsat-sorai* (Assamese); *Daotisha gurrmo gadeba* (Cachari); *Inga-ruina* (Kacha Naga); *Vohjong pong* (Mikir).

Size: Sparrow. **Field Characters**: Male differs from the Common Iora in having a pure yellow collar in the breeding plumage. Tail in both sexes black with broad white tips. **Distribution**: Replaces the Common Iora in Pakistan, Punjab, Haryana, south U.P., western Madhya Pradesh, Rajasthan, Kutch. **Habits**: Prefers sparse scrub country, thorn jungle and tree groves. **Food**: Insects and their larvae. **Call**: Distinct from the Ioras', commonly *wheeti wheeti*. The male's whistle more plaintive. **Nesting**: *Season* — June to August. *Nest* — a neat compact cup plastered with cobwebs usually in low shrubs. *Eggs* — 2, pale pinkish white blotched with purplish brown. Both sexes share parental duties.

395. **Goldfronted Chloropsis** or **Green Bulbul**

Chloropsis aurifrons (Temminck)

ACN: Goldenfronted Leafbird

Plate 50

Syn. No. 1103

Local names: *Chota harrial* or *Harewa* (Hindi).

Size: Bulbul. **Field Characters**: A spruce grass-green bird with bright golden forehead, purple and black chin and throat, and slender curved bill. Female paler and duller. Pairs or parties, in leafy or flower-laden trees. **Distribution**: Locally throughout the Indian Union; Bangladesh; Sri Lanka; Myanmar. Up to about 2000 m. Three races. **Habits**: Affects well-wooded areas, forest as well as neighbourhood of habitation. Hunts for insects and spiders in the foliage where its plumage blends perfectly; therefore, far oftener heard than seen. But is a particularly accomplished mimic of the calls of other birds — Bulbul, Drongo, Shrike, Magpie-Robin, etc. — and often passed over on this account. Sometimes mimics migratory birds during a season when they should be absent, thereby intriguing and confounding the observer. Besides insects, spiders and fruit, feeds largely on flower nectar. **Nesting**: *Season* — mainly May to August, with local variations. *Nest* — a loose shallow cup of tendrils, rootlets, etc., lined with soft grass or bast fibres, near tip of outhanging branch in fairly high tree, well concealed by foliage. *Eggs* — normally 2, cream or reddish cream, speckled with claret.

396. **Goldmantled Chloropsis**

Chloropsis cochinchinensis (Gmelin)

ACN: Bluewinged Leafbird

Plate 50

Syn. No. 1107

Local names: *Harewa* (Hindi); *Wanna bojantum* (Telugu); *Ilakkili* (Malayalam); *Nil-kurulla* (Sinhala).

Size: Bulbul. **Field Characters***: Differs from Goldfronted Chloropsis in absence of golden orange on forehead and presence of bright purplish blue moustachial streaks. The female has pale bluish green chin and throat, and bright greenish blue moustachial streaks. Pairs or parties, in leafy trees. Entirely arboreal. **Distribution**: The Gangetic Plain; all peninsular India; Sri Lanka. Plains and foothills. The nominate race *cochinchinensis* in Bangladesh, NE. hill states, Myanmar. **Habits**: Same as of the Goldfronted Chloropsis except that on the whole it prefers less thickly-wooded country. Partial to groves of trees around villages, and scattered amongst cultivation. Invariably present at flowers of Silk Cotton, Coral, Palas (*Butea*) and other trees, feeding greedily on the nectar and often acting dog-in-the-manager to other bird visitors. Also a very good mimic. Both chloropses are popular cage birds, but bullying and pugnacious and unsuitable for mixed aviaries. **Nesting**: *Season* — chiefly April to August, varying locally. *Nest* — similar to that of Goldfronted Chloropsis, both being plastered on the outside with cobwebs. *Eggs* — 2 or 3, pale creamy or pinkish white with sparse specks, blotches and hair-lines of blackish, purplish, and reddish brown. They are very different from eggs of the other species.

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* These refer chiefly to the subspecies *jerdoni* — Jerdon's Chloropsis.

397. **Fairy Bluebird** *Irena puella* (Latham)

ACN: Asian Fairy Bluebird

Plate 50

Syn. No. 1109

Local names: *Pana-kara-kurivi* (Tamil); *Lalita* (Malayalam).

Size: Myna+. **Field Characters**: *Male*: Brilliant ultramarine blue above, deep velvety black below. Under tail-coverts, blue. *Female* differs from male being a dull blue-green all over with blackish lores. **Distribution**: Resident, subject so seasonal wandering. Humid, heavy-rainfall areas of SW. India, mainly the Sahyadri hill complex, from about Ratnagiri southward through Kerala; plains level to *c.* 1800 m. Disjunctly also the eastern HImalayas, and Andaman and Nicobar islands. Affects evergreen and moist-deciduous biotope — shola forest, coffee plantations, and deep jungle. **Habits**: Arboreal. Small parties of 6 to 8 birds, often in association with green pigeons, hornbills and other frugivorous birds among large fruiting trees; sometimes descending into berry-laden bushes. **Food**: Chiefly fruits, berries and flower nectar. Also insects. **Call**: A 2-noted percussive liquid whistle *whit-tu* or *peepit* repeated every few seconds with a sharp jerking of the tail. **Nesting**: *Season* — not well defined; mainly February to April. *Nest* — distinctive; a rough platform of thickish straight twigs overlaid by green moss, leaf-ribs and rootlets. Placed in the fork of a densely foliaged tree in forest, from about 5 m up. *Eggs* — normally 2, olive-grey with irregular blotches of brown all over, more densely and in a ring round the broad end.

398. **Blackheaded Bulbul** *Pycnonotus atriceps* (Temminck)

Plate 50

Syn. No. 1112

Size: Redvented Bulbul-; length 18 cm (7 in.). **Field Characters**: Two phases. *Normal phase*, head glossy black, upperparts olive, mottled black on rump, wings olive and black, tail with black subterminal band and a broad yellow terminal band. Below, throat and upper breast glossy black, lower olive becoming yellow on belly and under surface. In the *grey phase* terminal band of tail is white. **Distribution**: NE. India from Meghalaya and N. Cachar, Tripura, Bangladesh eastwards; a separate race in the Andamans. **Habits**: Arboreal, coming down to bushes. Pick berries, hopping among branches. Sallies after winged insects; quarrelsome. **Food**: Mostly berries; also insects. **Call**: A lively, sharp but pleasant single chirrp while flying from tree to tree. A melancholy double whistle in the mornings and evenings. **Nesting**: *Season* — April and May. *Nest* — rather bulky for the size of the bird, well-built of fine stems, twigs, dead leaves and grass, lined with fine grass, in upright forks of branches or cane ponds, quite close to ground. *Eggs* — 2 or 3, pale pink with a violet tinge, finely speckled and blotched with reddish brown or purple-brown, forming a cap at large end.

399. **Greyheaded Bulbul** *Pycnonotus priocephalus* (Jerdon)

Plate 50

Syn. No. 1114

Local name: *Prakuruvi* (Malayalam).

Size: Redwhiskered Bulbul-. **Field Characters**: A greyheaded olive-green bulbul with characteristic broad square tail and conspicuously light coloured iris. **Distribution**: Restricted to the heavy rainfall areas of southwestern India from Belgaum southwards to

Kerala and adjacent hills of Tamil Nadu. **Habits**: Seen in dense evergreen cane-brakes in swampy jungle, *Lantana* thickets in forest clearings. Arboreal. Keeping to the canopy, singly, in pairs or small parties. **Food**: Berries, fruits and insects. **Call**: A clear, squeaky, whistling *cheek* or *peenk*. **Nesting**: *Season* — March to July. *Nest* — a shallow cup of dead grass, etc., in dense jungle. *Eggs* — 1, sometimes 2, pale pink tinged with violet.

400. **Blackheaded Yellow Bulbul**

Pycnonotus melanicterus (Gmelin)

ACN: Blackcrested Bulbul

Plate 50

Syn. No. 1115

Local names: *Zard bubul* (Hindi); *Pahariya kangdhara* (Gorakhpur); *Mandiphur* (Lepcha); *Hagrani dao-bulip* (Cachari).

Size: Myna-; same as Redvented Bulbul. **Field Characters**: Head, face and throat glossy black as is also the pointed erect crest. Upperparts olive-yellow; lower bright oil-yellow. Pale yellow eyes conspicuous at short range and through glasses. Sexes alike. Singly or in pairs or small parties in secondary scrub jungle, shrubbery around cultivation and on the outskirts of forest. **Distribution**: Lower Himalayas from Shimla to Arunachal Pradesh, Meghalaya, Manipur; Bangladesh (including Nepal, Sikkim, and Bhutan) up to about 500 m south to eastern Madhya Pradesh, Orissa, and northern Andhra. The Rubythroated crestless race *(gularis)* occurs in Kerala and adjacent hills of Tamil Nadu; Sri Lanka has the nominate *melanicterus*, smaller and crestless with a yellow throat. **Habits**: Similar to the Redvented and other bulbuls. Mainly frugivorous, but also eats insects. **Call**: Very pleasant; something between the cheery notes of the Redwhiskered Bulbul and the tinkling song of the Whitespotted Fantail Flycatcher. **Nesting**: *Season* — principally January to June, but also breeds in other months. *Nest* — like other bulbuls', a cup of fine twigs, rootlets, grass, etc., often bound with cobwebs, placed fairly low down in a bush or small tree. *Eggs* — 2 or 3, reddish white stippled and blotched with various shades of red. Both sexes share in nest building, incubation, and care of the young.

401. **Rubythroated Bulbul**

Pycnonotus melanicterus gularis (Gould)

Plate 50

Syn. No. 1116

Size: Redvented Bulbul. **Field Characters**: Olive yellow and bright yellow bulbul with black uncrested head, conspicuous white eye and ruby throat. Sexes alike. **Distribution**: Goa and Karnataka, Belgaum south to the end of the Ghats. **Habits**: Affects edges of evergreen forest thickets along rivers, mixed bamboo and evergreen forests and secondary growth in forest clearings. Arboreal, in pairs during breeding season otherwise in parties. Shy and retiring. **Food**: Berries and insects. **Call**: Contact call a *chrring* note. Song half a dozen tinkling notes of the pattern and richness of redvented bulbul call. **Nesting**: *Season* — January to August. *Nest* — a small cup of yellow dead leaves bound with cobweb placed low in a bush. *Eggs* — 2, faint pinkish white.

402. **Redwhiskered Bulbul** *Pycnonotus jocosus* (Linnaeus)

Plate 51

Syn. No. 1118

Local names: *Kamera bulbul, Pahari bulbul* (Hindi).

Size: Redvented Bulbul. **Field Characters**: Brown above, white below with a broken blackish necklace on breast. Black, upstanding, pointed crest, crimson 'whiskers' and crimson patch under root of tail are distinguishing features. Sexes alike. Pairs or loose gatherings. **Distribution**: The Indian Union, excepting the arid portions of the northwest (Rajasthan, etc.); Bangladesh; Myanmar. Also Andamans; introduced in the Nicobars. Patchily up to about 2000 m. Not Sri Lanka or Pakistan. Five races mainly on details of coloration. **Habits**: Typical of the bulbuls as described. Prefers better-wooded localities than the Redvented species and commonly found in hills up to 2500 m often to the exclusion of the latter. Sometimes the two species are found side by side, but normally the habitat preferences are marked. Enters gardens, and is usually tame and confiding. Its joyous querulous notes are rather similar to those of the Redvented Bulbul, but more musical and readily distinguishable. **Nesting**: *Season* — February to August; locally variable. *Nest* — like the other bulbuls', a cup of fine twigs, rootlets, grass, etc. Frequently built in thatch walls or roofs of inhabited huts. *Eggs* — 2 to 4, very similar to the last. Both sexes share parental duties.

403. **Whitecheeked Bulbul** *Pycnonotus leucogenys* (Gray)

ACN: Himalayan Bulbul *Pycnonotus leucogenys* (Gray)

White-eared Bulbul *Pycnonotus leucotis* (Gould)

Plate 51

Syn. No. 1123

Local names: *Kushandra* (Punjab); *Bhooroo* (Sind); *Jogido* (Kutch); *Kanaru bulbul* (Gujarati).

Size: Myna-. **Field characters**: An earth-brown bulbul with black head, glistening white cheeks, and sulphur yellow under root of tail. The crest varies from the rudimentary rounded black tuft of the race from Gujarat, etc., (now considered a separate species *P. leucotis*) to the long forwardly curving pointed crest of northern birds, e.g. from Kashmir. Sexes alike. Pairs or scattered parties, in gardens and open scrub country. **Distribution**: The Himalayas, west to east, up to about 3000 m and the country along their base. Pakistan; western and central India south to Bombay, east to Jhansi. Three races, mainly on length and colour of crest. **Habits**: Jaunty and vivacious as the last. Tame and confiding. Often enters houses to be fed, and for kitchen scraps, etc. Familiar visitor to house boats in Kashmir. Has a variety of cheery notes. On the countryside has a preference for semi-desert where berries of peepoo (*Salvadora persica*) and wild caper (*Capparis aphylla*) are its favourite food. Insects and flower nectar are also eaten. **Nesting**: *Season* — March to September, varying with local conditions. *Nest* — typical of bulbuls', a loosely built cup of grass and rootlets in a thorn bush or small tree, usually under 2 m. *Eggs* — 3 or 4, very like those of Redvented Bulbul.

404. **Redvented Bulbul** *Pycnonotus cafer* (Linnaeus)

Plate 51

Syn. No. 1128

Local names: *Bulbul, Guldum* (Hindi); *Pigli-pitta* (Telugu); *Konda-lati, Kondai kuruvi* (Tamil); *Nattu bulbul* (Malayalam).

Size: Myna-; 20 cm (8 in.). **Field Characters**: A perky smoke-brown bird with partially crested black head, scale-like markings on breast and back, a conspicuous crimson patch below root of tail, and a white rump, the last particularly noticeable in flight. Sexes alike. Pairs or small gatherings, in gardens and lightly wooded country. **Distribution**: Throughout the Indian Union; Bangladesh; Sri Lanka; Myanmar. Up to about 1500 m. Rare in Pakistan. Seven races, on minor differences in size and coloration. **Habits**: Common in gardens and light scrub jungle, both near and away from human habitations. Large numbers collect to feed on banyan and peepul figs and winged termite swarms. Has no song as such, but its joyous notes and vivacious disposition make it a welcome visitor to every garden. Its pugnacity makes it a favourite with fanciers as a fighting bird, and large stakes are wagered on bulbul fights. **Food**: Insects, fruits and berries, peas and such like vegetables, and flower nectar. **Nesting**: *Season* — chiefly between February and May, varying with local conditions. *Nest* — a cup of rootlets, sometimes plastered outside with cobwebs, in a bush or tree, 1 to 10 m (3 to 30 ft) up. *Eggs* — 2 or 3, pinkish white, profusely blotched with purplish brown or claret. Both sexes share parental duties.

405. **Striated Green Bulbul** *Pycnonotus striatus* (Blyth)

ACN: Striated Bulbul

Plate 51

Syn. No. 1133

Local names: *Senin-plek-pho* (Lepcha); *Chichiam* (Bhutan).

Size: Redvented Bulbul+. **Field Characters**: An upstanding brownish olive crest. *Above*, olive-green streaked finely with white, yellow ring round eye, wings and tail olive and brown, yellowish on the underside with pale yellow on outer feathers. *Below*, throat yellow, dark stippled. Breast dark grey. Belly olive with yellow stripes under tail-coverts yellow. Sexes alike. **Distribution**: Central Nepal eastwards along the Himalayas to Arunachal Pradesh, Abhor hills, hills of Meghalaya, N. Cachar, Manipur, Nagaland and Patkai hills. Between *c*. 1200 and 3000 m in summer, foothills in winter. **Habits**: Affects evergreen forests in flocks of 6 to 15 in non-breeding season. **Food**: Berries and insects. **Call**: A loud *pyik-pyik*, easily distinguished from other bulbuls. **Nesting**: May and June. *Nest* — a compact cup of twigs, etc., in a bush or bamboo clump. *Eggs* — 3, pale cream with small brown and purple blotches.

406. **Yellowthroated Bulbul** *Pycnonotus xantholaemus* (Jerdon)

Plate 51

Syn. No. 1135

Local name: *Kondapoda pigli* (Telugu).

Size: Redvented Bulbul+. **Field Characters**: A plain uncrested grey and yellow bulbul with bright yellow crown, chin, throat, thighs and under tail-coverts. Wings and yellow-tipped tail brown. Sexes alike. **Distribution**: Patchily in the Deccan between the Krishna

and Cauvery rivers — southern Andhra, eastern Karnataka (Bellary, Chitaldurg, Biligirirangans), Tamil Nadu (Chitteri Range, Sankaidurg, Shevaroy hills), and Kerala (one old record from Anaimalais). **Habits**: Seen in sparse scrub jungle with trees among stony hillocks. A confirmed skulker shy and restless. **Food**: Berries and insects. **Call**: Similar to yellow browed but higher pitched and softer resembling the Redvented Bulbul with which it associates. **Nesting**: *Season* — May to July. *Nest* — a shallow cup of twigs bound with cobwebs and lined with finer fibres. *Eggs* — 2 or 3, white, blotched with purple and brick red in a ring round the large end.

407. **Whitebrowed Bulbul** *Pycnonotus luteolus* (Lesson)

Plate 51

Syn. No. 1138

Local names: *Khar bulbul* (Marathi); *Poda pigli* (Telugu); *Manjal kondai kuruvi* (Tamil).

Size: Redvented Bulbul. **Field Characters**: Uncrested, sober brownish olive-green, with pale underparts and conspicuous white forehead and eyebrows. Sexes alike. Unobtrusive, skulking pairs in scrub-and-bush jungle. **Distribution**: Peninsular India south of a line from about Baroda to Midnapur (Bengal); Sri Lanka. Plains and foothills. Two races. Sri Lankan race differs from Indian in being smaller and darker. **Habits**: Frequents shrubbery in dry, open scrub-and-bush country. Occasionally enters rambling jungly gardens and compounds. Normal note, a subdued *churr*, but every now and again the male explodes in loud, abrupt snatches of rattling song, quite unmistakable when once heard. **Food**: Banyan and peepul figs, berries (such as *Zizyphus* and *Lantana*), insects and flower nectar. All species of bulbuls being predominantly fruit and berry eaters, play an important role in the dispersal of seeds and dissemination of plant life over the countryside. **Nesting**: *Season* — principally March to September; February to April in Kerala and Sri Lanka. *Nest* — typical bulbul structure, but rather flimsy cup of rootlets, etc., in a bush normally under 2 m. *Eggs* — 2 or 3, like the Redvented Bulbul's, but less richly marked.

408. **Yellowbrowed Bulbul** *Hypsipetes indicus* (Jerdon)

NN: *Iole indica* (Jerdon)

Plate 51

Syn. No. 1143

Local names: *Kopi-kurulla, Marawa, Gini-kurulla* (Sinhala), *Kopi kuruvi* (Tamil).

Field Characters: Uncrested. Olive-yellow above, lemon-yellow below, with bright yellow forehead and eyebrow (supercilium). Sexes alike. **Distribution**: Resident, locally common. The Sahyadri (W. Ghats) hill complex, including Nilgiri, Palni, Cardamom, etc., from south of Bombay (Mahabaleshwar) to south Kerala. Also Sri Lanka. From *c.* 900 m to the summits; commonest between 1000 and 1500 m. Evergreen biotope — sholas, shade trees in coffee and cardamom plantations, edges of moist jungle, etc. Three subspecies on shades of coloration. **Habits**: Arboreal. In noisy parties of 5 to 7; sometimes gatherings of 50+ where food is plentiful. Often forms the nucleus of the mixed feeding bird flocks. Forages among lofty fruit-laden trees as well as low bushes; winged insects flushed in the process seized in the air. **Food**: Mainly drupes and berries; also insects, spiders, and flower-nectar. **Call**: A

clear mellow double whistle, frequently uttered. **Nesting**: *Season* — February to May. *Nest* — unconventional for bulbul; more like oriole's; deep round cup slung hammockwise in a horizontal fork of twigs, 2 or 3 m up in a sapling in thick cover. *Eggs* — 2 or 3, pale creamy pink freckled and blotched with red, more densely at broad end.

409. **Black Bulbul** *Hypsipetes madagascariensis* (P.L.S. Müller)

NN: *Hypsipetes leucocephalus* Gmelin

Plate 51

Syn. No. 1148

Local names: *Wan bulbul, Kruhun bulbul* (Kashmir); *Ban bakra* (Mussoorie); *Darkal* (Chamba); *Phaki-pho* (Lepcha); *Kaki* (Paharia), *Myna-bulbul* (Kerala); *Karuppu kondai kuruvi* (Tamil); *Dao-bulip gashim* (Cachari).

Size: Bulbul (Myna-). **Field Characters**: A slaty grey, black-crested bulbul with slightly forked tail and bright red bill and legs. Sexes alike. **Distribution**: Resident, with local movements. The Sahyadri (W. Ghats) hill complex, including Nilgiri, Palni, and other hills in Karnataka and Kerala, from near Bombay (Matheran) southward. Also Shevaroy Hills (Tamil Nadu). From *c.* 700 m to the summits. Affects evergreen and moist-deciduous forest, hillstation gardens, etc. Besides the South Indian subspecies (*ganeesa*) there are 3 others differing in details, respectively in the Himalayas, NE. hill states and Sri Lanka. **Habits**: Arboreal. Noisy boistrous parties of 6 to 10, sometimes large flocks, in the foliage canopy of lofty forest trees, flying in rabbles from tree to tree, commonly keeping company with the mixed hunting flocks. Seldom descends to bushes. Often launches short twisting sallies from treetops to capture insects in the air. **Food**: Mainly fruits and berries; also insects and flower-nectar. **Call**: An assortment of loud sharp squeaky whistles *chirp, chee-chee-chee* or *whew whe,* etc. **Nesting**: *Season* — chiefly May-July. *Nest* — a neat but flimsy cup of grass, dead leaves, moss, lichen bound with cobwebs and lined with rootlets, fine grass, etc., 10 m or more up in the fork of a horizontal branch. *Eggs* — 2 to 4, pale pink covered all over with tiny blotches of red- or purple-brown and grey.

410. **Spotted Babbler** *Pellorneum ruficeps* Swainson

ACN: Puffthroated Babbler

Plate 52

Syn. No. 1152

Habits: *Saruhunni kuruvi* (Tamil); *Adavi lika jittu* (Telugu).

Size: Bulbul+. **Field Characters**: A small olive-brown babbler with a reddish brown cap. Underparts whitish with breast heavily streaked or spotted with brown. Sexes alike. Pairs and family parties, skulking in undergrowth and on the ground. **Distribution**: Widely distributed in India to about 1500 m elevation, from the Himalayas to Kerala; Bangladesh; Myanmar. With many races. An allied species in Sri Lanka. **Habits**: Affects well-wooded areas. Partial to dry ravines and hillsides overgrown with scrub and bamboo thickets. Rummages on the ground amongst the humus for insects, running about silently like a quail. Usually shy and difficult to observe. **Call**: Of 3 or 4 rich plaintive whistling notes, *pret-ty sweet* or *he'll beat you*, repeated monotonously for many minutes. Also has a loud percussive song of several clear whistling notes heard chiefly morning and evening, particularly during breeding season. **Nesting**: *Season* — March to May; locally up to August. *Nest* — a ball of bamboo leaves, etc., with lateral entrance hole, on ground in bank of nullah in forest. *Eggs* — 2 or 3, white or creamy white speckled and blotched with brown.

411. **Slatyheaded Scimitar Babbler** *Pomatorhinus horsfieldii* Sykes

ACN: Indian Scimitar Babbler

Plate 52

Syn. No. 1172

Size: Bulbul+; Myna-. **Field Characters**: A slaty headed dark brown babbler with white throat and breast, prominent white eyebrows, and curved pointed yellow bill. Sexes alike. Pairs, or parties, in dense bush cover. **Distribution**: The Indian Union; Sri Lanka. Bangladesh and eastward. Ten races, of which *horsfieldii* of Deccan and peninsular India best known. **Habits**: Confined to forested country, chiefly broken and hilly, with tangled undergrowth and bamboo and cane brakes, etc., up to 2000 m elevation. As a rule shy and and a great skulker. Rummages on the ground under dense undergrowth, flicking the leaves aside or digging in the moist earth with its scimitar bill for insects and grubs. Also ascends into moss-covered branches of trees and bamboo culms in quest of food. Mellow bubbling or gurgling calls enable individuals of a pair or party to keep contact with one another. The male's musical flute-like call of 4 notes is promptly acknowledged by his mate near by, so that both calls sound as parts of one and as if uttered by the same bird. Flight feeble and ill-sustained. **Food**: Chiefly insects and berries. **Nesting**: *Season* — mainly December to May. *Nest* — a loosely put-together ball of grass, moss, rootlets and leaves on the ground under a bush in a dry forest ravine. *Eggs* — 3 to 5, pure white. Both sexes share parental duties.

412. **Rufousbellied Babbler** *Dumetia hyperythra* (Franklin)

ACN: Tawnybellied Babbler

Plate 52

Syn. No. 1221

Local name: *Karamadi laledo* (Gujarati).

Size: Sparrow. **Field Characters**: Olive-brown above, rusty fulvous below. Sexes alike. Active, cheeping flocks, in scrub and grass jungle. **Distribution**: All India from the Himalayan foothills, southward; Bangladesh; Sri Lanka. Not Pakistan, Assam or Myanmar. Four races based on coloration details, the southern populations distinguished by a white throat. **Habits**: Inhabits lightly wooded thorny scrub and tall grass country, in skulking flocks of 5 to 10. The individuals keep in touch by means of feeble but sharp cheeping calls *sweech, sweech*, etc., somewhat like a sunbird's, and utter harsh tittering notes when alarmed. The birds scatter and dive into the thickets, but soon reassemble by the more agitated cheeping and tittering that ensues. **Food**: Insects and larvae; also flower nectar. **Nesting**: *Season* — chiefly between May and September; November to March in Sri Lanka. *Nest* — a neat ball of coarse grass and bamboo leaves lined with softer grass and rootlets, with entrance hole at side. Placed in a bush under 1 m and well concealed. *Eggs* — 3 or 4, glossy pinkish white, profusely speckled and blotched with reddish or dark brown.

413. **Yellowbreasted Babbler** *Macronous gularis* (Horsfield)

ACN: Striped Tit Babbler

Plate 52

Syn. No. 1228

Size: Sparrow-. **Field Characters**: *Above* Greyish olive with tawny olive cap and wings. Lores and supercilium pale yellow. *Below* generally pale yellow, breast with dark streaks. Sides of body olive buff. Sexes alike. **Distribution**: Nepal eastwards, throughout NE. India,

eastern Peninsula and up to east Karnataka in the Deccan. Bangladesh. **Habits**: Seen in both light and dense forest among the undergrowth; keeps in parties of a dozen or more hunting in the foliage quickly moving from tree to tree. Occasionally on the ground. **Food**: Insects. **Call**: A noisy species, with a rich metallic surprisingly loud *kew-kew-kew*. Call repeated with short breaks. Alarm call a sharp *chrr*. **Nesting**: *Season* — April to July. *Nest* — globular, made of bamboo leaves, etc., placed low in bushes or bamboo clumps. *Eggs* — 3 to 4, white with reddish brown blotches making a ring at the large end.

414. **Redcapped Babbler** *Timalia pileata* Horsfield

ACN: Chestnutcapped Babbler

Plate 52

Syn. No. 1229

Local names: *Vongnavi* (Mikir); *Dao-maogasha gashim* (Cachari); *Ingeto* (Kacha Naga).

Size: Sparrow+. **Field Characters**: Crown chestnut, lores and stout bill black. Forehead, a streak over eye, and ear-coverts white; sides of neck slate grey. Back olive-brown, tail brown, barred and graduated. *Below* chin and throat white, latter streaked with black, belly buff. Sexes alike. **Distribution**: From western Nepal east to Arunachal Pradesh, plains of the Brahmaputra, West Bengal; Bangladesh; Myanmar. **Habits**: Affects low lying swampy areas. Seen in pairs in breeding season, parties of 6 to 8 otherwise. Hunts for insects in low cover. Seldom seen. **Food**: Insects. **Call**: Ordinarily a quiet *tit tit*. Alarm call a harsh *korchuk*. Song a flute-like trilling whistle. Distinctive. Another commonly heard call is a *chit chit chit* as it forages. **Nesting**: *Season* — March to October. *Nest* — a roughly made ball of grass and bamboo leaves placed low in a bush or on the ground under a bush or grass clump. *Eggs* — 3 to 5, white with dark blotches.

415. **Yelloweyed Babbler** *Chrysomma sinense* (Gmelin)

Plate 52

Syn. No. 1231

Local names: *Bulal-chashm, Gulab-chasm* (Hindi); *Yerra kali-jitta* (Telugu).

Size: Bulbul-. **Field Characters**: Cinnamon and chestnut-brown above, white below, with conspicuous orange-yellow ring round eye. Sexes alike. Small parties, in scrub and grass undergrowth. **Distribution**: The Indian Union; Pakistan; Bangladesh; Sri Lanka; Myanmar. Plains and up to about 1500 m. Three races, mainly on coloration. **Habits**: A dweller of thorn scrub and grass jungle, commonly met with in patches and such separating cultivated fields. Hunts in small loose flocks, clinging to reed stems sideways or upside down like a tit. A great skulker, and when alarmed will hop away through the undergrowth and vanish uttering harsh tittering notes. **Call**: A clear, loud, rather plaintive *cheep-cheep-cheep*. In the breeding season males clamber up to the top of bushes, etc., and deliver a loud and pretty song. Flight feeble and jerky. **Food**: Chiefly spiders and insects; also berries and flower nectar. **Nesting**: *Season* — June to September (SW. monsoon). *Nest* — a deep neat cup of grasses cemented and plastered over with cobwebs. In bushes, seldom above 1 m high. *Eggs* — 4 or 5, yellowish white finely speckled with purplish brown. Both sexes share parental duties.

416. **Common Babbler** *Turdoides caudatus* (Dumont)

Plate 53

Syn. No. 1254

Local names: *Heddo, Lailo* (Sindi), *Chilchil, Sor, Genga, Chhota genga, Dumri* (Hindi); *Sheradi* (Gujarati); *Chinna sida* (Telugu); *Huni* (Tamil); *Chilappan* (Malayalam).

Size: Bulbul; tail relatively longer. **Field Characters**: A slim earthy brown babbler, with upper plumage streaked darker, and long, graduated, loosely attached tail which is finely cross-rayed. Sexes alike. Flocks of a half dozen or more on the ground or in low bushes. **Distribution**: The Indian Union excepting NE. states; Bangladesh; Pakistan; dry plains and hills to about 1500 m. Not Sri Lanka or Myanmar. **Habits**: Has a preference for dry open country and semi-desert with thorn scrub and shrubby vegetation, but is by no means restricted to such. Avoids humid forest. The birds feed on the ground and scuttle along like rats through thorn scrub and thickets, and are loth to fly. Flight feeble — a few rapid flaps followed by a glide on outspread wings and tail. **Call**: A series of short pleasant trilling whistles. When agitated the birds utter a musical whistling *which-which-whichi-ri-ri-ri-ri-ri,* etc., as they nervously twitch their wings and tail and hop from bush to bush, the whole sisterhood combining to hurl invectives at the intruder in a disorderly chorus. **Food**: Insects, berries, grain and flower nectar. **Nesting**: *Season* — generally between March and July, but irregularly over the entire year. *Nest* — a neat compact cup of grass and rootlets in a low thorny bush, seldom over 2 m up. *Eggs* — 3 or 4, turquoise coloured, glossy. Both sexes share domestic duties. *Nest* — commonly parasitized by Pied Crested and Hawk-Cuckoos.

417. **Striated Babbler** *Turdoides earlei* (Blyth)

Plate 53

Syn. No. 1256

Local names: *Bada-phenga* or *genga, Chilchil* (Hindi); *Dora chhatare* (Bengali).

Size: Bulbul. **Field Characters**: An earth-brown bird with a long graduated tail, streaked head and back. Distinguished from the Common Babbler by the fulvous (not white) throat and habitat difference. **Distribution**: The plains of the Ganges and Brahmaputra from the Punjab through Uttar Pradesh, Nepal terai to Assam, Bengal and Mahanadi delta in Orissa. Bangladesh; Pakistan. **Habits**: Occurs in elephant grass, rushes, swamps along the great river systems. Also seen in dry grass and acacia scrub in winter. Replaces Common Babbler in wet terrain. Gregarious and noisy. Seen in flocks of 7-10 plus, following each other amongst vegetation. **Food**: Insects, snails and some vegetable matter. **Call**: A trisyllabic whistle and a slow *cheer cheer cheer.* **Nesting**: *Season* — March to October with two broods, March to May and August to October. *Nest* — a neat, massive, cup-shaped structure of grass, reed-leaves, rootlets, etc., bound to close growing reed-stems or placed in a bush surrounded by grass. *Eggs* — 3 or 4, pale blue. Parasitized by the Pied Crested Cuckoo (*Clamator jacobinus*).

418. **Slenderbilled Babbler** *Turdoides longirostris* (Hodgson)

Plate 53

Syn. No. 1257

Local name: *Dao ling titri* (Cachar).

Size: Bulbul+. **Field Characters**: Reddish brown above with lores and cheeks whitish. Bill black, slender and curved. Chin and throat whitish otherwise ferruginous below. The white cheeks are distinctive. Sexes alike. **Distribution**: Bihar, Nepal and Sikkim terai, northern Bengal and Bhutan duars, Arunachal Pradesh, Assam duars, Meghalaya and Manipur. Bangladesh. **Habits**: In long grass near water in the lowlands and the grass plateau of Meghalaya between 900-1200 m. Gregarious and noisy, a skulker moving deftly through the grass without showing itself. **Food**: Mostly insects. **Call**: A variety of notes both pleasant and discordant. **Nesting**: *Season* — May and June. *Nest* — a neat cup of grass, leaves, etc., bound with fibres and placed in a bush surrounded by grass. *Eggs* — 3 to 5, pale blue. Not gregarious during the breeding season and the birds are very circumspect in entering and leaving the nest.

419. **Large Grey Babbler** *Turdoides malcolmi* (Sykes)

Plate 53

Syn. No. 1258

Local names: *Ghogoi, Gaugai* (Hindi); *Gongya* (Kannada); *Kokatti* or *Khekta* (Marathi); *Bhaina* (Lucknow, U.P.); *Laledo* (Gujarati); *Verri-chinda, Gowa-sida* (Telugu).

Size: Myna. **Field Characters**: Similar to the Jungle Babbler, but pale greyish- (against earthy-) brown, with grey forehead. Tail longer and more graduated, with white outer feathers conspicuous in flight and when the tail is spread. Sexes alike. 'Sisterhoods' of a dozen or so, or larger flocks, rummaging on the ground in open cultivated plains country. **Distribution**: East of a line from Kutch to Punjab (Ferozepore); west of one from eastern U.P. (Ghaziabad) to eastern Maharashtra State (Chanda). Common on the Deccan Plateau extending down to Kerala(?) and W. Tamil Nadu (Nilgiris and Palnis); local and patchy in some areas. An endemic species, absent in Sri Lanka, Bangladesh and Pakistan. **Habits**: Sociable with the same flight, food and general behaviour as the Jungle and Common Babblers. Differs from them chiefly in its habitat — cultivated plains country dotted with babool, mango, and neem trees. Avoids the better-wooded jungly tracts preferred by the former, as well as the drier semi-desert facies of the latter, but sometimes overlaps with either species in marginal localities. **Call**: A loud, discordant, almost inane, *kay, kay, kay, kay*, etc. monotonously repeated by several individuals at the same time, with plumage frowzled, wings partly drooping, and tail loosely jerked from time to time. **Nesting**: *Season* — irregular; more or less throughout th year. *Nest* — a loosely built cup of twigs, roots, and grass, usually under 5 m up in a mango or other leafy tree. *Eggs* — 3 or 4, blue, slightly larger but very similar to those of the Common Babbler. Nests commonly parasitized by Pied Crested and Hawk-Cuckoos.

420. **Rufous Babbler** *Turdoides subrufus* (Jerdon)

Plate 53

Syn. No. 1259

Local names: *Jungli-khyr* (Hindi); *Chenchilappan* (Malayalam).

Size: Myna-. **Field Characters**: An olive-brown and rufous-tinged babbler with deep grey forehead, slightly cross-barred tail. Underparts brightly ferruginous. Sexes alike. **Distribution**: Resident. the Sahyadri or Western Ghats complex from about Mahableshwar (Maharashtra) south through the Nilgiri, Palni, and associated hills, and Kerala. Also Shevaroy Hills in northern Tamil Nadu. Foothills and up to about 1100 m. Evergreen or moist-deciduous secondary jungle with dense scrubby undergrowth and tall grass and bamboo brakes. The Kerala population south of the Palghat Gap and adjacent hills, namely *T. s. hyperythrus* is more richly coloured than the nominate *T.s. subrufus* to the north of it. **Habits**: A skulker like the rest of its tribe. Keeps in parties of 6-8 which rummage for food on the ground among the mulch and humus. The birds clamber up among the bamboo clumps and scuttle away on alarm through the spiky tangles with the agility of a rat. **Food**: Insects, berries and flower nectar. **Call**: A continuous shrill whistling *tree ...tree...tree* in long runs, punctuated now and again by typical harsh babbler squeaks. **Nesting**: *Season* — mostly February to May. *Nest* — a rough bulky cup of dry leaves and grass, placed in a bush or small tree in abandoned overgrown clearings, etc. *Eggs* — normally 4, unmarked dark blue.

421. **Jungle Babbler** *Turdoides striatus* (Dumont)

Plate 53

Syn. No. 1262

Local names: *Sat bhai* (Hindi); *Kariyilakkili* (Malayalam).

Size: Myna-. **Field Characters**: An earthy brown frowzled and untidy looking bird with a longish tail which gives the impression of being loosely stuck into body. Sexes alike. Invariably in flocks of half a dozen or more, whence its popular names *Sat bhai* in Hindi, 'Seven Sisters' in English. **Distribution**: Throughout the Indian Union, Bangladesh, Pakistan, plains and hills up to about 2000 m elevation. Six races, on differences in coloration. **Habits**: Inhabits outlying jungle, well-wooded compounds, gardens and groves of trees about towns and villages. Flocks or 'sisterhoods' hop about on the ground rummaging amongst the fallen leaves and mulch for moths and other insects. They usually form the nucleus of the mixed hunting parties of birds in forest. The flock keeps up a constant conversational chatter and squeaking which sometimes develops into loud discordant wrangling. Sociable even while paired off and nesting, feeding in flocks and banding together to ward off attack by predatory hawk or cat. **Food**: Spiders, cockroaches and other insects, and larvae; wild figs, berries, grain and nectar of flowers of Coral, Silk Cotton and other trees. **Nesting**: *Season* — irregularly throughout the year. *Nest* — a loosely built cup of twigs, rootlets and grass in the fork of a leafy branch 2 to 3 m up. *Eggs* — 3 or 4, turquoise blue. Parental duties shared by both sexes and more or less communally. Nests commonly parasitized by the Pied Crested and Common Hawk-Cuckoos.

422. **Whiteheaded Babbler** *Turdoides affinis* (Jerdon)

Plate 53

Syn. No. 1267

Local names: *Kariyilakkili* (Malayalam); *Chinda sida* (Telugu); *Thavittu-kuruvi, Pandri-kuruvi* (Tamil).

Size: Bulbul+. **Field Characters**: The dingy cream coloured crown contrasting with the dark ear covers as well as its sharper, more musical call notes distinguish this species from the jungle babbler and related species. **Distribution**: Andhra Pradesh from the Godavari and Penganga rivers south to W. Karnataka from Belgaum, Tamil Nadu, Kerala to Kanyakumari in drier and more open low scrub country than the jungle babbler. Sri Lanka. **Habits**: Seen in dense scrub, particularly *Lantana*, also orchards and urban gardens, the common babbler of Hyderabad and Madras cities. Gregarious. **Food**: Insects and vegetable matter. Occasionally other small animals. **Call**: Sharper and more musical than that of Jungle Babbler; very distinct. A musical trill *tri ri ri*. **Nesting**: *Season* — January to November, with two peaks in March to June and October-November. *Nest* — an open bowl of twigs and rootlets built low in bushes. *Eggs* — 3 or 4, turquoise blue. Both sexes share parental duties and other adult members of the flock also feed the fledglings. Communal or co-operative nest building and rearing of young is common among babblers. The species is parasitized by the Pied Crested Cuckoo.

423. **Necklaced Laughing Thrush** *Garrulax moniliger* (Hodgson)

ACN: Lesser Necklaced Laughing Thrush

Plate 54

Syn. No. 1275

Local names: *Ol-pho* (Lepcha); *Piang-kam* (Bhutia); *Poreri* or *Purirhi* (Dafla); *Bada Penga* (Bengali).

Size: Myna+. **Field Characters**: Distinguished from the Blackgorgeted Laughing Thrush (*G. pectoralis*) by lack of chin stripe, narrow necklace, white chin and throat, olive-brown shoulders, yellowish brown legs and feet, black bill and smaller size. Sexes alike. **Distribution**: From west central Nepal eastwards to Arunachal Pradesh, Nagaland, hills of Assam and Meghalaya, from plains to 1000 m. Bangladesh. **Habits**: Occurs in thick evergreen moist-deciduous forests and secondary jungle. Highly gregarious often in the company of the Blackgorgeted Laughing Thrush which it resembles in behaviour. Feeds on the ground. **Food**: Insects, small animals and berries, etc. **Call**: Silent and secretive in human presence otherwise a noisy chorus of musical whistles indistinguishable from those of *G. pectoralis*. **Nesting**: *Season* — March to July. *Nest* — a shallow, bulky saucer of bamboo leaves. *Eggs* — 4 to 5. Often parasitized by cuckoos.

424. **Blackgorgeted Laughing Thrush** *Garrulax pectoralis* (Gould)

ACN: Greater Necklaced Laughing Thrush

Plate 54

Syn. No. 1278

Local names: *Ol-pho* (Lepcha); *Piang-kam* (Bhutia); *Poreri* or *Purirhi* (Dafla); *Bada Penga* (Bengali).

Size: Myna+. **Field Characters**: Olive brown with a rufous-nuchal collar and white supercilium extending to collar, shoulders blackish brown, outer edge of wing whitish. Tail graduated, a broad white terminal band visible in flight. Belly white. Sexes alike. **Distribution**: Common. From Central Nepal eastwards to Arunachal Pradesh, hills south of the Brahmaputra and NE. Bangladesh from plains to *c.* 1700 m. **Habits**: Highly gregarious, often in association with Necklaced and other laughing thrushes. Feeds on the forest floor. **Food**: Insects. **Call**: Very noisy, indistinguishable from *G. moniliger*, a strange human piping interspersed with short whistles. **Nesting**: *Season* — March to August. *Nest* — a bulky, shallow saucer of bamboo leaves placed in small trees or bushes. *Eggs* — 3 to 5. Brood parasitized by cuckoos.

425. **Whitecrested Laughing Thrush**
Garrulax leucolophus (Hardwicke)

Plate 54

Syn. No. 1283

Local names: *Naga-dhaopuleka* (Assam); *Dao-flantu* (Cachari); *Ngo* (Naga).

Size: Myna+. **Field Characters**: A large olive-brown bird with a distinctive white crested head, throat and breast, with a prominent black eye mask and blackish tail. Sexes alike. **Distribution**: Himalayas from Chamba eastwards to Arunachal Pradesh, from the plains to 1700 m. Also hills south of the Brahmaputra and NE. Bangladesh. **Habits**: Affects dense undergrowth of forests and secondary scrub and bamboo jungle. Highly gregarious. Seen often in foraging parties with other laughing thrushes and other species. Feeds largely on the ground. **Food**: Insects, berries, nectar and small animals. **Call**: Very noisy, calling each other and often bursting into a chorus of discordant cacophony. **Nesting**: *Season* — March to September. *Nest* — a shallow cup of bamboo and other leaves loosely bound with creepers, placed in a shrub in dense jungle. *Eggs* — 3 to 6. Both sexes incubate. Brood parasitized by cuckoos.

426. **Wynaad Laughing Thrush** *Garrulax delesserti* (Jerdon)

Yellowthroated Laughing Thrush *G.d. gularis* (Eastern race)

Plate 54

Syn. No. 1287

Local name: *Patungan kili* (Malayalam)

Size: Myna. **Field Characters**: An uncrested laughing thrush, chiefly slaty grey and chestnut-brown, ashy grey and chestnut below. Pure white throat, and broad black streak through eye. Sexes alike. Has one far-flung subspecies (*gularis*) in the eastern Himalayas, with yellow throat instead of white. **Distribution**: Resident; locally common. The Sahyadri

(Western Ghats) hill complex from Goa and Belgaum south through western Karnataka, Kerala and western Tamil Nadu (Nilgiris, Palnis, etc.). Also E. Bhutan to Arunachal Pradesh, hills south of the Brahmaputra; Bangladesh. Foothills and up to *c.* 1500 m. Affects humid rain forest with dense undergrowth of *Strobilanthes*, thorny cane brakes, and cardamom sholas. **Habits**: Typical of laughing thrushes. A great skulker. Noisy flocks or 'sisterhoods' of 6-10 rummage among the mulch on the forest floor, turning over or flicking aside the dry leaves in search of insects. **Food**: Insects and berries. **Call**: Shrill chattering cackles and squeals, and discordant 'laughter' in concert. **Nesting**: *Season* — chiefly the monsoon, between April and September. *Nest* — a bulky semi-domed cup of rootlets and creeper stems, etc., in a bush or sapling. *Eggs* — 3 or 4, white, unmarked.

427. **Nilgiri Laughing Thrush** *Garrulax cachinnans* (Jerdon)

Plate 54

Syn. No. 1307

Size: Myna+. **Field Characters**: An olive-brown and rufous laughing thrush. Crown and nape slaty, with a prominent white supercilium. Distinguished from Kerala Laughing Thrush by its rufous, not grey, breast. Sexes alike. **Distribution**: Resident. Very common in its curiously restricted range — the Nilgiri Hills of South India, from *c.* 1200 m up to the summits. Affects dense undergrowth and lichen-covered trees in shola forest, freely entering hillstation gardens and roadside shrubbery. **Habits**: Reminiscent of Jungle Babbler, q.v. Parties of 6 to 12 birds often in association with mixed hunting flocks which are such a feature of the south Indian sholas. The birds hunt in the low trees, often descending to the ground to rummage among the fallen leaves. It is a great skulker and will creep away silently through cover on the least alarm, or climb up into trees hopping along the boughs, and from branch to branch, with great agility. **Food**: Insects and berries, especially wild raspberry (*Rubus* sp.) and hill guava (*Rhodomyrtus*). **Call**: A spirited 'laughing' oft-repeated *pee-ko-ko,* etc., frequently uttered in concert. Also an assortment of squeaks and squeals. Normally very noisy. **Nesting**: *Season* — February to July, chiefly May-June. *Nest* — cup-shaped, of grass, rootlets, moss and lichens, in a bush or small tree. *Eggs* — 2 or 3, pale blue spotted and blotched with reddish brown. Commonly brood-parasitized by Pied Crested Cuckoo.

428. **Kerala** or **Jerdon's Laughing Thrush**
Garrulax jerdoni Blyth

Plate 54

Syn. No. 1310

Local name: *Chiluchilappan* (Malayalam).

Size: Myna+. **Field Characters**: Crown and nape dark sooty brown. A white supercilium and a blackish stripe below it through the eyes. Olive brown above, throat, cheeks and breast grey. Belly rufous. **Distribution**: Hills of Karnataka from about Goa border (Castle Rock) in the north, hills of Kerala and W. Tamil Nadu, down the southern Kerala ghats to the Ashambu Hills. Common in the hills of N. Kerala and western Tamil Nadu (Madurai dist.) — Cardamom, Kanan Devan and Palni; High Wavy Mountains. From *c.* 1200 m to the summits, coincident with occurrence of brambles (*Rubus* spp.). Affects wild raspberry and bracken thickets at edge of sholas and along streams through tea gardens, etc. Also shrubbery near hillmen's settlements and at hillstations. **Habits**: Confined to evergreen biotope. Keeps in parties of six to twelve birds hunting among the undergrowth. A great

skulker. **Food**: Insects, berries and fruits especially *Rubus, Trema, Maesa indica* and *Luvunea eleulherandra*. **Call**: Loud shrieks, whistles and 'laughter' uttered in chorus. **Nesting**: *Season* — December to June. *Nest* — a cup of coarse grass usually well concealed. *Eggs* — 2, pale blue marked with reddish. Both sexes share parental duties. Three races.
Two other subspecies are found in this restricted area: 1. *G.j.jerdoni* (western Karnataka — Coorg and Brahmagiri Hills) which has a black chin; 2. *G.j.meridionale* (South Kerala — Ashambu Hills) which has a shorter white supercilium and grey of breast running down centre of belly.

429. **Silvereared Mesia** *Leiothrix argentauris* (Hodgson)

Plate 52

Syn. No. 1333

Local names: *Dang-rapchil-pho* (Lepcha); *Jharjhari* (Pahari).

Size: Sparrow. **Field Characters**: A brightly coloured arboreal babbler with black crown and moustachial stripe and silver ear-coverts. Forehead yellow, throat and breast bright orange-yellow, wing with yellow edge and crimson patch. Tail-coverts crimson. Female has tail-coverts ochraceous below and olive-yellow above. **Distribution**: Resident. Himalayas from Garhwal eastwards to W. Bengal (Kurseong, Darjeeling), Sikkim to Arunachal Pradesh, south to Asseam, Nagaland, Meghalaya, Mizoram; Bangladesh (Chittagong region). **Habits**: Affects scrub jungle from foothills to *c.* 2100 m. Seen in parties of six or more searching actively for insects among the foliage. **Food**: Insects, seeds and berries. **Call**: A clear whistling note *seesee-siweewee*. **Nesting**: *Season* — April to August. *Nest* — a cup made of leaves placed in a low bush. *Eggs* — usually 4. Both sexes share parental duties.

430. **Redbilled Leiothrix** *Leiothrix lutea* (Scopoli)

Plate 53

Syn. No. 1335

Local names: *Jharjhari* (Pahari); *Rapchil-pho* (Lepcha); *Daotisha-buku-gajao* (Cachari).

Size: Sparrow-. **Field Characters**: A sprightly, overall greyish olive bird, with bright yellow throat and breast, pale lores and eye-ring and scarlet bill. Wings black with yellow-and-crimson edges. Tail forked, black above, olive below with black edges and tip. Female lacks crimson on wings. **Distribution**: Resident. Himalayas from Pakistan, Kashmir eastwards to Arunachal Pradesh. Common in eastern Himalayas. Also in the hills of Assam, Meghalaya, Nagaland and Manipur. **Habits**: Affects undergrowth in forest and secondary growth in small parties of four to six in association with other babblers foraging through the undergrowth. Sometimes on the ground. **Food**: Insects, seeds, and berries. **Call**: Song is a loud, cheerful warbling similar to a Redwhiskered Bulbul's. Usually while feeding a clear, wistful unvaried *pe-pe-pe*. **Nesting**: *Season* — April to October. *Nest* — a cup made of leaves, moss, lichen, etc. *Eggs* — 3 or 4, pale blue blotched with shades of brown. Both sexes share parental duties.

431. **Whiteheaded Shrike-Babbler**

Gampsorhynchus rufulus Blyth

Plate 52

Syn. No. 1347

Local names: *Chongto-phep-pho* (Lepcha); *Daophlantu-tiba* (Cachari).

Size: Bulbul+. **Field Characters**: Whole head, nape, shoulder patch, throat, breast white. Belly buffy white. Under tail-coverts buff. Otherwise olive brown, the wings with buff inner edge. Tail strongly graduated tipped with buff. **Distribution**: Resident. The base of the hills from eastern Nepal eastwards to Arunachal pradesh, south through Nagaland, Manipur, Assam hills, Meghalaya and hills of Bangladesh. **Habits**: Affects secondary growth and undergrowth in evergreen forests. Arboreal, gregarious and noisy. Keeps in parties of up to 15 in association with other species in mixed hunting parties. **Food**: Insects and possibly berries. **Call**: A variety of calls incessantly uttered. **Nesting**: *Season* — April to August. *Nest* — a shallow, flimsy, saucer of dead leaves, twigs, etc., bound with roots and tendrils plastered with cobwebs. *Eggs* — 3 or 4, pale green, blotched with brown.

432. **Quaker Babbler** *Alcippe poioicephala* (Jerdon)

Plate 52

Syn. No. 1389

Local name: *Seetimar laledo* (Gujarati).

Size: Sparrow+; Bulbul-. **Field Characters**: A small olive-brown babbler with ashy grey head and neck, pale greyish underparts, and rusty brown wings and tail. Sexes alike. Flocks, in foliage canopy of forest trees or shrubs. **Distribution**: Peninsular India and Meghalaya, Nagaland, Manipur and hill tracts of Assam; Bangladesh; Myanmar. Not Sri Lanka. **Habits**: Largely arboreal. Frequents moist-deciduous forest preferably hilly country. Flocks of 5 to 10 or more, commonly mixed with parties of other small birds hunting insects in the foliage. Flits from sprig to sprig and clings to leaf stalks in acrobatic positions to investigate. **Call**: A clear whistling quavering song of 4 notes, constantly uttered, which proclaims the bird's presence a long way off. Also utters a harsh *chir-r, chir-r*. **Food**: Insects, spiders, flower nectar, etc. **Nesting**: *Season* — Principally during SW. monsoon, June to September; in south India January to May. *Nest* — a flimsy cup of rootlets, moss, lichens, etc., in a crotch of a sapling 1 to 3 m up, or slung hammockwise between upright weed-stems. *Eggs* — 2 or 3, pale salmon with blotches of purplish brown and pale grey. Both sexes share parental duties.

433. **Blackcapped Sibia** *Heterophasia capistrata* (Vigors)

ACN: Rufous Sibia

Plate 53

Syn. No. 1396

Local names: *Sibia* (Nepalese), *Sambriak-pho* (Lepcha); *Sesigona* (Bhutanese).

Size: Bulbul+. **Field characters**: The black erectile crest, crown and ear coverts distinctive. Back rump and tail rufous. Midback grey. Wings slaty with black shoulder patch and a white patch conspicuous in flight. Tail rufous, long and graduated, black outer edge and tipped grey. Below cinnamon. Sexes alike. **Distribution**: From Murree (Pakistan) to

Arunachal Pradesh. Three races. **Habits**: Occurs in various types of forests with a preference for mixed evergreen, oak, etc. Arboreal. Seen in pairs or small parties. A lively and active bird hunting among the leaves as well as catching insects on the wing. **Food**: Insects and berries, also nectar. **Call**: A clear flute like song, very pleasing and loud. In seven notes, like the jingle of a silver bell repeated about every half minute. **Nesting**: *Season* — April to August. *Nest* — a neat cup of mosses, grass and leaves firmly interwoven and built near the tip of a high branch. *Eggs* — 3, pale bluish grey, spotted, etc., with brown. Both sexes share in nest building. Incubation by female. Nest deserted on slightest disturbance.

434. **Brown Flycatcher** *Muscicapa latirostris* Raffles

NN: Asian Brown Flycatcher *Muscicapa daurica* Pallas

Plate 55

Syn. No. 1407

Local names: *Zakki* (Hindi); *Thavittupakshi* (Malayalam).

Size: Sparrow+. **Field Characters**: Ashy brown above with a conspicuous white ring around strikingly large dark eyes; dirty white below, greyish on breast and flanks. Throat conspicuously white, clear bright yellow lower mandible and black legs. **Distribution**: Two summer visiting and one resident populaton in the subcontinent. Himalayan foothills from Murree Hills in Pakistan to Bhutan duars between 900 and 1900 m; a disjunct population in the Vindhyas around Sehore and Mhow in Madhya Pradesh; a third resident population in the Western Ghats from N. Kanara to the Cardamom Hills. Possibly E. Ghats. In winter over most of India, Andamans and Nicobars; Sri Lanka; Bangladesh. **Habits**: Affects open, mixed deciduous-forests, plantations, village groves, gardens, partial to the vicinity of streams. Makes aerial sallies for insects from a perch. **Food**: Largely flies. **Call**: A feeble *chi-chi-ri-ri* or *chik-chik-r-r*. **Nesting**: *Season* — April to June. *Nest* — a compact cup of moss, decorated with lichen and lined with fibres and feathers. Usually built on a bare thick branch. *Eggs* — 4. Incubation by female who is fed by the male.

435. **Brownbreasted Flycatcher** *Muscicapa muttui* (Layard)

Plate 55

Syn. No. 1408

Local name: *Muttupilla* (Malayalam).

Size: Sparrow+. **Field Characters**: Similar to Brown Flycatcher but olive-brown above with a brownish breast band highlighting the white throat. Legs yellow. Rufous-brown on lower rump and tail, wing feathers rusty edged. Lores, ring around eye, throat and centre of belly white. Sexes alike. **Distribution**: Breeds in NE. hill states of India. Winters in the Western Ghats from Londa southwards from October to April. Also Sri Lanka. Seen on passage in Sikkim, Central India, North Andhra Pradesh and Maharashtra. **Habits**: Affects evergreen forests, dense scrub and on fringe of jungle vegetation. Territorial and parochial. **Food**: Chiefly flies. **Call**: Has a feeble song during the breeding season. **Nesting**: *Season* — April to June. *Nest* — a neat cup of moss placed in bushes or tangled vegetation. *Eggs* — 4 or 5, pink brown or grey blue marked with brow. Both sexes incubate.

436. **Rufoustailed Flycatcher** *Muscicapa ruficauda* Swainson

ACN: Rustytailed Flycatcher

Plate 55

Syn. No. 1409

Local name: *Chempuvalanpakshi* (Malayalam).

Size: Sparrow-. **Field Characters**: A drab brown flycatcher with rufous tail, noticeable pale eye-ring, throat and breast grey-brown, belly white. Sexes alike. **Distribution**: Breeds in the Western Himalayas from Pakistan east to Central Nepal between 2100 and 3600 m. Winters in SW. India from N. Kanara to Kerala. On passage observed in Kutch, Rajasthan and E. Ghats. **Habits**: Solitary. Largely keeps to the canopy of large trees. Frequents edge of forests. **Food**: Insects, chiefly flies. **Call**: Three or four loud clear notes, rapidly repeated. **Nesting**: *Season* — May to July. *Nest* — a solid cup made of moss, coated with lichen and cobweb placed on bushes or horizontal forks in trees. *Eggs* — 3 or 4, pale sea green freckled with reddish.

437. **Redbreasted Flycatcher** *Muscicapa parva* Bechstein

NN: *Ficedula parva* (Bechstein)

Plate 55

Syn. No. 1412

Local names: *Turra* (Hindi); *Yeepidippan* (Tamil).

Size: Sparrow-. **Field Characters**: A plain brown flycatcher with partly cocked black-and-white tail and wings drooping on either side of it. In adult male chin, throat, and breast bright orange-chestnut; in female and young male breast ashy fulvous, underparts white. The white patches in the basal half of the black tail diagnostic in flight, and when tail switched up. Singly in leafy trees on village outskirts, roadsides, bungalow compounds, and forest plantations, etc. **Distribution**: Winter visitor practically throughout India; Andamans (Narcondam Is.), Bangladesh; Pakistan; Sri Lanka. Two races. Kashmir Redbreasted Flycatcher, *Muscicapa subrubra* Hartert & Steinbacher, once treated as a race of *Muscicapa parva*, having black-edged underparts in the male, and blackish brown tail darker than back in the female, breeds in the NE. Himalayas in Kashmir and the Pir Panjal, and winters as far south as Maharashtra and Andhra in the Peninsula. Both sexes have white on either side of the basal half of the tail as in *M. parva*. **Habits**: Typical flycatcher. Flits among branches of trees, launching short twisting sallies to capture winged insects. Descends to the ground momentarily to pick up crawling prey and flits back into an overhanging branch. From time to time the cocked tail is twitched upright to the accompaniment of a sharp *click-click*. Has a pretty song of leaf warbler quality, but not heard in its winter quarters. **Nesting**: Extralimital.

438. **Whitebrowed Blue Flycatcher**
Muscicapa superciliaris Jerdon

NN: Ultramarine Flycatcher *Ficedula superciliaris* (Jerdon)

Plate 55

Syn. No. 1421

Size: Sparrow-. **Field Characters**: *Male* deep blue above with a white supercilium from eye to nape and a white patch on either side of basal half of tail in the nominate race, but absent in the race *aestigma*. Sides of head and neck deep blue. Centre of throat; breast and belly white. The white throat especially distinctive. *Female* mouse-grey, tail blackish edged with blue. Sides of neck and breast greyish white, centre of throat, breast and belly glistening white. **Distribution**: Breeds in the W. Himalayas from Kohat in Pakistan to Arunachal Pradesh between 1800 and 3200 m; also hills of Nagaland, Manipur, Assam and Meghalaya. Two races. Winters in central India from Delhi south to Karnataka; also Bangladesh. **Habits**: Usually seen singly in mixed hunting parties in middle storey of the forest, village groves, gardens and orchards. **Food**: Insects. **Call**: Call-note a soft repeated *tick*. Song an oft repeated *che-chi-purr*. **Nesting**: *Season* — April to July. *Nest* — a structure of fine moss, lined with hair placed in holes or on clefts in trees. *Eggs* — 3 to 5, olive green freckled with reddish brown. Both sexes share parental duties.

439. **Black-and-Orange Flycatcher** *Muscicapa nigrorufa* (Jerdon)

NN: Black and Rufous Flycatcher *Ficedula nigrorufa* (Jerdon)

Plate 55

Syn. No. 1427

Local name: *Menippakshi* (Malayalam).

Size: Sparrow-. **Field Characters**: English name adequately descriptive. *Female* similar to male, but with the orange-paler, and the head less black. **Distribution**: Resident, fairly common. Restricted to the hills of Tamil Nadu, Karnataka and Kerala (Nilgiris, Palnis, Anamalais, etc.) south to the Ashambu Hills. From *c.* 1000 m to the summits; commoner above 1500 m. Evergreen biotope — dense undergrowth in sholas, at edge of coffee plantations, in dank ravines, etc. **Habits**: A 'non-conformist' flycatcher. Not shy, but unobtrusive and difficult to locate except by its soft chittering calls from depth of shrubbery. Keeps singly or in pairs hopping quietly on the ground or among the low stems and rootstocks, and flitting from bush to bush. Very parochial, frequenting the same thicket day after day. Swoops to the ground to pick up an insect and back again, very like a bushchat. Like it also switches expanded tail up and down sometimes jerking it up to half-cocked position with wings partially drooped at sides. Rarely makes the typical flycatcher sallies to capture insects in the air. **Food**: Tiny insects and caterpillars. **Call**: A high-pitched soft *chee-ri-ri-ri* and *tui-tui-tui* with variations. Song (male), a soft whistling *whi-chee-ree-rirr*. **Nesting**: *Season* — chiefly April to June. *Nest* — a friable untidy ball of loosely put together sedge blades (*Carex* sp.) and bamboo leaves, etc., in a low bush or seedling. *Eggs* — almost invariably 2, pale greyish or buffy white freckled with reddish, more densely and in a ring round the broader end.

440. **Rufousbellied Niltava** *Muscicapa sundara* (Hodgson)

NN: *Niltava sundara* (Hodgson)

Plate 55

Syn. No. 1432

Local names: *Niltau* (Nepal); *Margong* (Lepcha).

Size: Sparrow. **Field Characters**: *Male*, forehead black; crown, rump, shoulders and a neck patch bright ultramarine blue. Sides of head and back dark purplish blue. Except for purplish throat rest of underparts rufous-orange. *Female* predominantly olive or fulvous brown with blue patch on each side of neck and a white patch on lower throat. **Distribution**: Himalayas from Pakistan to Arunachal Pradesh up to 2300 m and south in the hills of NE. states in summer; foothills and adjacent plains in winter. Also Bangladesh. **Habits**: Affects dense undergrowth in forests, bushes near water in winter. Feeds on low undergrowth and on ground. **Food**: Insects and berries. **Call**: Song described as squeaky and grating rendered as *s-i-i-chuck*. **Nesting**: *Season* — April to July. *Nest* — made of moss and usually placed in a hole in clefts or crevices of rocks. *Eggs* — normally 4. Both sexes share parental duties.

441. **Whitebellied Blue Flycatcher** *Muscicapa pallipes* Jerdon

NN: *Cyornis pallipes* (Jerdon)

Plate 55

Syn. No. 1435

Local name: *Kattuneeli* (Malayalam).

Size: Sparrow+. **Field Characters**: *Male* rather like Nilgiri Verditer but with white belly. *Female*: Above, pale brown with chestnut tail; below, throat and breast orange-rufous; belly white. Distinguished from somewhat, similar Redbreasted Flycatcher by *chestnut* tail instead of black-and-white. **Distribution**: Resident, fairly common in the hills of the Sahyadri (W. Ghats) complex (Nilgiri, Palni, High Wavy, etc.) from a little north of Bombay (Bhimashankar) to S. Kerala. Foothills and up to *c.* 1700 m in evergreen biotope — sholas, cardamom ravines, dank undergrowth of seedlings, *Strobilanthes*, etc. **Habits**: Typical flycatcher, but comparatively sluggish and retiring, thus often escaping observation. Keeps singly, frequently in association with the itinerant mixed hunting flocks. Perches bolt upright, spreads tail and screws it from side to side rather like Thickbilled Flowerpecker. **Food**: Chiefly insects. **Call**: A low *tsk-tsk*. Song, sweet and rich though somewhat squeaky, divided into phrases of several notes. **Nesting**: *Season* — February to September. *Nest* — a rough untidy cup of grass, rootlets, moss, etc., placed on a fairly low ledge of rock or in a hole in a dead tree stump or earth bank. *Eggs* — normally 4, pale sea-green or yellowish, botched with dark brown.

442. **Brooks's Flycatcher** *Muscicapa poliogenys* (Brooks)

NN: Palechinned Blue Flycatcher *Cyornis poliogenys* Brooks

Plate 55

Syn. No. 1436

Size: Sparrow-. **Field Characters**: Olive-brown above, greyer on crown and sides of head. A pale eye ring. Tail rufous brown. Throat white or buff otherwise fulvous below. Sexes alike. The male of the peninsular race has a bluish wash on the upper parts. Resembles a

quaker babbler and likely to be confused with the female of other flycatchers. **Distribution**: Resident from central Nepal and Sikkim eastwards to Arunachal Pradesh south to hills of Meghalaya, Mizoram, Nagaland, Assam and Manipur; Bangladesh. The peninsular race occurs in the Eastern Ghats of Northern Orissa. **Habits**: Like other flycatchers, hawks, insects, also descends to the ground and hunts among the debris like a chat. **Food**: insects. **Call**: Alarm notes *tik-tik-tik*. Song a pleasant trill mellow and varied. **Nesting**: *Season* — April to June. *Nest* — a compact cup of grass moss and dead leaves, and grass lined with rootlets, placed in a hollow of a bank, among boulders or in a hole in a tree stump. *Eggs* — 3 to 5, pale olive green or buff densely speckled with red. Incubation by both sexes.

443. **Bluethroated Flycatcher** *Muscicapa rubeculoides* (Vigors)

NN: *Cyornis rubeculoides* (Vigors)

Plate 56

Syn. No. 1440

Local names: *Ghatki* (Bengali); *Manzil pho* (Lepcha); *Neelachenpan* (Malayalam).

Size: Sparrow-. **Field Characters**: *Male*: Above dull ultramarine blue, brighter on forehead and supercilium. Lores black, *below* throat dark blue, breast rufous; belly and under tail-coverts tinged with buff. Dark blue throat, rufous breast and white belly identifies the male. *Female*: Olive-brown above tinged with rufous on rump. Pale lores and eye ring. Throat buff, breast ochraceous, otherwise white. **Distribution**: Breeds in the Himalayas from Pakistan; Kashmir to Arunachal Pradesh and south in the hills of Manipur, Meghalaya; also Bangladesh. Winters in the hills of south India, Western and Eastern Ghats. Pakistan (summer visitor, breeding unrecorded. **Habits**: Affects forests with plenty of undergrowth. Keeps to undergrowth and frequently drops to the ground. **Food**: Insects and grubs. **Call**: Call-note *click click* or *chik*. Song similar to Tickell's Flycatcher. **Nesting**: *Season* — April to August. *Nest* — mostly of green moss, placed in a crevice or cleft in bank or rock or hole in tree. *Eggs* — normally 4. Both sexes share parental duties.

444. **Tickell's Blue Flycatcher** *Muscicapa tickelliae* (Blyth)

NN: *Cyornis tickelliae* Blyth

Plate 56

Syn. No. 1442

Local names: *Adharanga* (Gujarati); *Neelakkuruvi* (Malayalam; Tamil).

Size: Sparrow+. **Field Characters**: A blue bird with bright azure forehead, eyebrows and shoulder-patches. Throat and breast pale rusty, fading to white on abdomen. Female paler and duller. Singly, in secondary bush jungle. **Distribution**: Practically throughout the Indian Union; Bangladesh; Sri Lanka. Two races differing mainly in details of coloration: Indian (*tickelliae*), and Sri Lankan (*jerdoni*). **Habits**: Affects lightly-wooded deciduous country. Partial to foothills, haunting shady glades and bamboo-clad ravines. Sits bolt upright on some low twig or liana stem, flicking its tail, uttering a sharp *click-click*, and launching short agile sallies after flies and midges. Song: a pleasing little metallic trill, constantly uttered, which usually proclaims its presence in a thicket long before the bird is seen. **Food**: Flies, gnats and other dipterous insects. **Nesting**: *Season* — March to August, varying with local conditions. *Nest* — an untidy cup of twigs, rootlets, moss and leaves in hollows in tree-stumps or earth-banks, or up in a bamboo clump at moderate heights. Usually inconspicuous in its surroundings. *Eggs* — 3 to 5, pale clay-brown or olive-brown, sprayed all over with minute reddish brown specks.

445. **Verditer Flycatcher** *Muscicapa thalassina* Swainson

NN: *Eumyias thalassina* (Swainson)

Plate 56

Syn. No. 1445

Local names: *Puthir chitta, Nil-katkatia* (Bengal); *Sibyell-pho* (Lepcha); *Daotisha lili gadeba* (Cachari); *Neelameni* (Malayalam).

Size: Sparrow+. **Field Characters**: Female differs from blue-green male in being duller and greyer. Singly, in wooded country, hawking flies from exposed tree-tops. **Distribution**: *Winter*: more or less over the entire Indian Union (excepting the drier portions of Rajasthan); Pakistan (excepting Punjab plains and Sind); Bangladesh; Myanmar. Not Sri Lanka. *Summer* (breeding); the Himalayas west, to east to Arunachal Pradesh, between 1000 to 3000 m elevation and hills south of the Brahmaputra. Sri Lanka has an allied species *M. sordida*, dusky grey-blue with white under tail-coverts only; no white in tail. **Habits**: Affects well-wooded country. Makes agile aerial sallies after dipterous insects and captures them in mid-air in the typical flycatcher manner. Silent in winter. Breeding males have a sweet, pleasing jingling song, rather like the White-eye's but louder. **Nesting**: *Season* — in the Himalayas, April to July. *Nest* — a thicksided cup of moss, root hairs, etc., under eaves of a bungalow or in a hole in walls, embankments or amongst exposed roots of trees. *Eggs* — 4, pale pink with darker cap-like ring at broad end. Both sexes share domestic duties.

446. **Nilgiri Verditer Flycatcher** *Muscicapa albicaudata* Jerdon

NN: *Eumyias albicaudata* (Jerdon)

Plate 56

Syn. No. 1446

Local name: *Neelakkili* (Malayalam).

Size: Sparrow+. **Field Characters**: Very like the wintering Himalayan Verditer but duller coloured — more indigo-blue than bluish green — with a white patch at base of tail. *Female*: dull greenish grey, also with the distinctive white tail-patch. **Distribution**: Common resident in the hills, from *c.* 600 m to the highest summits. Southern section of the Sahyadri (Western Ghats) complex (including the Nilgiri, Palni and associated hills) southward through Kerala to the Ashambu Hills. Affects sholas, cardamom and coffee plantations, and forest glades; also gardens and roadside trees at hillstations. **Habits**: Typical flycatcher. Met with singly, often in association with Greyheaded Flycatcher. Launches graceful aerial sorties to capture winged insects. Perches rather upright, and switches tail up and down while calling **Food**: Flies and gnats, etc. **Call**: A series of 4 or 5 *chips*. Song reminiscent of Pied Bushchat's; of general pattern of Verditer Flycatcher. **Nesting**: *Season* — chiefly March-April. *Nest* — a largish cup of moss, etc., placed in hollows or holes in earth banks, walls or tree-trunks; sometimes under eaves in occupied bungalows. *Eggs* — 2 or 3, pale creamy pink freckled with reddish.

447. **Greyheaded Flycatcher** *Culicicapa ceylonensis* (Swainson)

ACN: Greyheaded Canary Flycatcher

Plate 56

Syn. No. 1448

Local name: *Zard-phutki* (Bengali).

Size: Sparrow-. **Field Characters**: A tiny, restless greenish yellow flycatcher with ashy grey head, neck, and breast, and bright yellow underparts. Sexes alike. Singly, flitting and flycatching from branches in well-wooded country. **Distribution**: Practically the entire Indian Union, Bangladesh, Pakistan (except the arid northwest portions), and Sri Lanka. Two races. Resident and local migrant. the species extends east to China, south to Malaysia. **Habits**: Very active. Makes lively aerial swoops after flies, turning, twisting, looping-the-loop dextrously and returning to its perch. **Call**: A sharp, rather prolonged twittering note. Also a pretty, surprisingly loud whistling song of five notes *chik-whichee-whichee*? ending interrogatively. **Nesting**: *Season* — April to June. *Nest* — a tiny half cup of moss and lichens attached like a bracket against a mossy tree-trunk, forested areas up to 2500 m altitude. *Eggs* — 3 or 4, greyish or cream coloured with sparse blotches of yellowish grey often forming a ring at the broad end.

448. **Whitebrowed Fantail Flycatcher**
Rhipidura aureola Lesson

Plate 56

Syn. No. 1451

Size: Sparrow-. **Field characters**: A restless dark sooty brown flycatcher with a broad white forehead and supercilium extending to the nape; white underparts, and a white-tipped tail. Sometimes with an indistinct broken black band across breast, but its broad white forehead and supercilium readily distinguish it in the field from *R. albicollis*. Sexes alike. **Distribution**: The entire Indian Union, extending east to Myanmar; also Pakistan; Bangladesh; Sri Lanka. Three races. **Habits**: Usually keep in pairs and restrict themselves to a prescribed locality; frequently joining up mixed hunting parties of small insectivorous birds. Flit tirelessly from one sprig of leaves to another or from tree to tree, waltzing and pirouetting amongst branches or on a nearby wall or stone. Makes graceful sallies after flies, looping-the-loop in the air to capture a quarry. **Food**: Insects, chiefly diptera and hemiptera. **Call**: A harsh *chuck-chuck* is commonly uttered; also has a delightful song rendered as *chee-chee-cheweechee-vi* delivered as the bird prances about. **Nesting**: *Season* — February to August, chiefly March to June. *Nest* — a neat compact cup of fine grass, plentifully plastered with cobwebs on the outside, rounded off at the bottom like an Iora's, placed in a fork of a twig under 3 m. *Eggs* — normally 3 or 4, pale pinkish cream, with a ring of tiny brown specks around broad end. Both sexes share in nest building, incubation and care of the young.

449. **Whitespotted Fantail Flycatcher** *Rhipidura albicollis* (Vieillot)

Plate 56

Syn. No. 1458

Local names: *Machharya, Chakdil* (Hindi).

Size: Sparrow+. **Field Characters**: A cheery restless smoke-brown bird with conspicuous white eyebrows, white-spotted breast and flanks, and whitish abdomen. Its most striking feature is the perky, cocked and fanned-out tail with wings drooping on either side. Pairs, in wooded country, shrubbery, gardens, etc. **Distribution**: The subspecies *albogularis* inhabits southern Gujarat and Maharashtra and peninsular India in and south of Madhya Pradesh, up to about 2000 m elevation. Five other subspecies, on minor colour differences. **Habits**: Affects secondary jungle, gardens, groves and shrubbery even amidst noisy towns. Flits tirelessly in foliage and on ground, waltzing and pirouetting. Launches graceful aerial looping-the-loop sallies after flies and gnats. **Call**: A harsh *chuk-chuk*. Also a delightful clear whistling song of several tinkling notes constantly warbled as the bird prances about. **Nesting**: *Season* — March to August. *Nest* — a beautiful neat cup of fine grass and fibres, copiously plastered outside with cobweb, in a crotch or fork of twig usually under 3 m up. *Eggs* — 3, pinkish cream with a ring of minute brown specks round broad end. Both sexes share domestic duties.

450. **Paradise Flycatcher** *Terpsiphone paradisi* (Linnaeus)

ACN: Asian Paradise Flycatcher

Plate 56

Syn. No. 1461

Local names: Rufous plumage: *Shah bulbul, Husaini bulbul*. White plumage: *Sultan bulbul* (Hindi); *Dudhraj, Tarwario* ('swordsman') [Gujarati]; *Toka pigili-pitta* ('long-tailed bird', Telugu); *Wal kondalathi* (= 'tail crest shaker'), *Val kuruvi* (Tamil, Malayalam).

Size: Bulbul. **Field Characters**: Adult male silvery white with metallic black crested head and two long, narrow ribbon-like feathers in tail. Young male, and female, chestnut above, greyish white below, very like a bulbul in overall appearance. Young male has chestnut streamers in tail; female is without. Singly or pairs, in wooded country. **Distribution**: Practically throughout the Indian Union; Pakistan; Bangladesh; Sri Lanka; Myanmar. Plains and up to about 2000 m in the Himalayas and peninsular hills. Resident in some localities, migratory in others. The two Indian races, *paradisi* and *leucogaster* differ in details of size and coloration. In the Sri Lankan race, *ceylonensis*, the adult male never acquires the white plumage. **Habits**: Frequents shady groves and gardens, often about human habitations, and light deciduous jungle with bamboo-clad ravines. The agile fairy-like movements of the male as he twists and turns in the air after flies, with his tail-ribbons looping or trailing behind, is a spectacle of exquisite charm. **Call**: Normally a harsh grating *che* or *che-chew*, supplemented during breeding season by some pleasanter notes, but no song. **Food**: Flies, gnats and other dipterous insects. **Nesting**: *Season* — February to July, varying locally. *Nest* — a compactly woven cup of fine grasses and fibres, plastered outside with cobwebs, built in the crotch or elbow of a twig 2 to 4 m up. *Eggs* — 3 to 5, pale creamy pink, speckled and blotched with reddish brown. Both sexes share parental duties, but female does the major part.

451. **Blacknaped Blue Flycatcher** *Hypothymis azurea* (Boddaert)

ACN: Blacknaped Monarch

Plate 56

Syn. No. 1465

Local names: *Kala katkatia, Kala matha katkatia* (Bengali); *Yeepidippan* (Tamil); *Vel-nelli* (Malayalam).

Size: Sparrow. **Field Characters**: A partially fantailed bright blue flycatcher with whitish abdomen, velvety black patch on nape (tuft), and black gorget across foreneck. Female browner, less blue, with grey and white underparts, and lacking the black marks. Singly or separated pairs, in wooded country; partial to mixed bamboo jungle. **Distribution**: The Indian race *styani* occurs south and east of a line from Khandesh to Lucknow; Pakistan; Bangladesh; Myanmar; Thailand, etc. Sri Lanka has an endemic race *(ceylonensis)*. Also Andamans and Nicobars. **Habits**: Typical flycatcher. Keeps chiefly to middle and lower storey of vegetation, often in the mixed foraging parties of other insectivorous birds. Hunts in trees, undergrowth, and on ground, making agile aerial pursuits, or flitting and prancing about with tail spread and partly erected, wings drooping on either side like the Whitespotted Fantail. **Food**: Flies and midges; also larger insects like cicadas. **Call**: A distinctive, harsh but lively *sweech-which*?. No song. **Nesting**: *Season* — April to August. *Nest* — a deep cup of fine grasses and moss, draped outside with spiders' egg-cases, lichens, etc., in fork of slender branch 2 to 8 m up. *Eggs* — 3 or 4, pale creamy pink with reddish brown blotches. Very similar to those of Paradise Flycatcher but smaller.

452. **Streaked Fantail Warbler** *Cisticola juncidis* (Rafinesque)

ACN: Zitting Cisticola

Plate 57

Syn. No. 1498

Local names: *Ghaski-phutki, Ghaski-pitpiti* (Hindi); *Khergusa* (Bhagalpur); *Tuntunia* (Monghyr); *Yedru-pitta* (Telugu).

Size: Sparrow-. **Field Characters**: A tiny bird, dark-streaked fulvous-brown above, whitish below, with a short white-tipped tail constantly flicked open like a fan. Singly, or several loosely together, among tail grass and reeds. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and up to about 1500 m. Four races, on size and details of coloration. **Habits**: Affects open grassland, reedbeds bordering a marsh, and standing cereal crops. Moves about locally with seasonal conditions. When flushed, flies a short distance and dives into the grass again. The curious mounting zigzag flight in which the fan-shaped tail is conspicuous, and the sharp *chip..chip..chip* accompanying it, announce its presence in any locality. These irregular wavy aerial zigzags of the male, 20 or 40 m above the nest-site, are a common feature in the breeding season. At each successive dip in the undulating flight, every second or so, the bird utters a single *chip* remarkably like the distant snip of a barber's scissors. **Food**: Small insects and caterpillars. **Nesting**: *Season* — coincident with the monsoon, varying in different parts of its range, but chiefly June to September. *Nest* — a deep oblong pouch of grasses with its mouth at the top, lined with vegetable down and secured to blades of grass with cobweb. Usually under a metre from ground. *Eggs* — 3 to 5, pale bluish white, speckled with red and purple.

453. **Franklin's Wren-Warbler** *Prinia hodgsonii* Blyth

ACN: Greybreasted Prinia

Plate 57

Syn. No. 1503

Local name: *Phutki* (Hindi).

Size: Sparrow-. **Field Characters**: A dusky grey wren-warbler with rust-brown wings; underparts whitish with a brown diffuse ashy band across breast. A longish grey tail tipped with black white. In winter can be confused with Ashy Wren-Warbler, but is more gregarious. Sexes alike. **Distribution**: Throughout the Indian Union (except the arid northwest); Pakistan; Bangladesh; Sri Lanka. **Habits**: Keeps singly or in pairs or in small parties to scrub jungle with coarse grass and thorn bushes; to deciduous forests with rank undergrowth, gardens. Flits jerkily from bush to bush with a constant flicking of the tail. **Food**: Chiefly insects also nectar from *Butea, Erythrina* and other flowers. **Call**: In breeding season, the male gives a spirited performance from an exposed perch excitedly warbling his squeaky *yousee yousee-yousee-which-which-which* song. A conversational call-note, *zee zee zee* is uttered as the birds move along. **Nesting**: *Season* — June to October. *Nest* — a rough cup of grass and fibres built inside a pendent leaf like a tailor bird's nest. *Eggs* — 3 or 4, white or pale blue marked with reddish brown. Both sexes share parental duties.

454. **Rufousfronted Wren-Warbler** *Prinia buchanani* Blyth

ACN: Rufousfronted Prinia

Plate 57

Syn. No. 1506

Local names: *Chiho* (Sind); *Lalbhalni fudki* (Gujarati).

Size: Sparrow-. **Field Characters**: Forehead and crown rufous; lores and a narrow supercilium white. Back grey brown, tail dark brown with broad white tips except on the central pair showing up as a conspicuous white fringe when the tail is fanned out while alighting. Below whitish tinged with fulvous on flanks and vent. Sexes alike. Distinguished from Ashy Wren-Warbler in the field by its rusty crown and white-tipped tail. **Distribution**: Pakistan, northwest India east to Bihar and south to Maharashtra and Andhra Pradesh. **Habits**: Affects arid scrub jungle with coarse grass and bushes. Generally a drier biotope than Franklin's Wren-Warbler. Seen in pairs or small parties and is more terrestrial feeding than other wren-warblers. **Food**: Insects and larva. **Call**: A lively twittering song and a call-note *chirrup* while foraging. **Nesting**: *Season* — June to September. *Nest* — a cup shaped to a domed purse-like structure of fine grass and fibres concealed in a tussock of grass or a thorn bush. *Eggs* — 4 or 5, white profusely marked with reddish brown.

455. **Plain Wren-Warbler** *Prinia subflava* (Gmelin)

ACN: Plain Prinia

Plate 57

Syn. No. 1511

Local names: *Phutki* (Hindi); *Lota-kun-jitta* (Telugu); *Chitakul* (Saugor, M.P.).

Size: Sparrow-. **Field Characters**: Same as Ashy Wren-Warbler, but rufous earthy brown above without terminal spots to tail. Winter plumage more fulvous and longer-tailed. Sexes alike. Pairs in open scrub-and-grass country. **Distribution**: The Indian Union south of the

Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Five races, mainly on details of coloration. **Habits**: Affects somewhat drier habitats than Ashy Wren-Warbler; otherwise not appreciably different. **Food**: Insects: caterpillars, ants, small beetles, etc. Flower nectar: *Salmalia, Erythrina*, etc. **Call**: Call-notes, a rather plaintive *tee-tee-tee*; also utters a *kink, kink...* or *chi-up* rapidly repeated many times. Song a grasshopper-like rapid *tlick-tlick-tlick...* sustained for ten seconds or more without a pause. **Nesting**: *Season* — March to September, chiefly SW. monsoon. *Nest* — a longish pear-shaped pouch of woven grass strips, open or with lateral entrance hole near top. Slung between upright weed stems usually under a metre. *Eggs* — 3 to 5, glossy greenish blue, speckled, blotched and pencilled with reddish brown. Both sexes share parental duties.

456. **Ashy Wren-Warbler** *Prinia socialis* Sykes

ACN: Ashy Prinia

Plate 57

Syn. No. 1517

Local names: *Phutki, Kali phutki* (Hindi); *Katirkuruvi* (Malayalam).

Size: Sparrow-. **Field Characters**: Ashy slate above, fulvous white below. The loose, longish, graduated, black-and-white tipped tail is carried partially erect and constantly shaken up and down. Sexes alike. Winter plumage less slaty, more brown, than summer. Pairs in gardens and well-watered scrub country. **Distribution**: The Indian Union; Pakistan; Bangladesh; Sri Lanka. Up to 1500 m in the Himalayas and 2000 m in south India. Four races, on details of size and coloration. **Habits**: Frequents shrubbery in gardens, reeds bordering streams, and moist grassland and scrub. Hops about quietly amongst bushes, shaking its tail loosely up and down and uttering a sharp *tee-tee-tee* from time to time. During the breeding season males warble excitedly from exposed perches. When suddenly disturbed off its nest, this warbler and several others of its near cousins, emit a peculiar *kit-kit-kit* as of electric sparks. Whether this is produced by snapping the bill or in some other way is controversial. **Food**: Insects. **Nesting**: *Season* — March to September, mainly after onset of monsoon. *Nest* — of two types (1) like Tailor Bird's, in a funnel of stitched leaves, (2) an oblong purse of woven fibres tacked and bound with cobweb to the supporting leaves of a low bush. *Eggs* — 3 or 4, glossy brick-red with a dark ring round broad end. Incubation takes 12 days. Both sexes share all domestic duties.

457. **Jungle Wren-Warbler** *Prinia sylvatica* Jerdon

ACN: Jungle Prinia

Plate 57

Syn. No. 1521

Local names: *Tot-rungi* (Hindi); *Kenda-lotakun-jitta* (Telugu); *Chettolirivo* (Malayalam).

Size: Sparrow-. **Field Characters**: An earthy brown warbler with longish graduated tail. Lores and a narrow supercilium whitish. Tail tipped whitish, outermost pair almost entirely white on inner web. Cream coloured below. The three north Indian races have a darker, ruddy winter plumage. **Distribution**: Throughout the subcontinent. Also Bangladesh; Sri Lanka; but not Pakistan. Five races are recognised. **Habits**: Affects low bush jungle with coarse grass. Keeps in pairs or small parties often in the company of other warblers. **Food**: Insects, spiders. **Call**: Song, a loud triple note *pit-pretty, pit-pretty* repeated frequently.

Nesting: *Season* — March to October. *Nest* — a round or oval ball of grass strengthened with cobwebs and vegetable down built in a low bush or clump of grass. *Eggs* — usually 4, variable in colour. Both sexes share parental duties.

458. **Streaked Wren-Warbler** *Prinia gracilis* (Lichtenstein)

ACN: Graceful Prinia

Plate 57

Syn. No. 1508

Local names: *Khar phutki* (Hindi); *Vid fudki* (Gujarati).

Size: Sparrow-. **Field characters**: Ostensibly a miniature of the Common Babbler except for the white tipped tail feathers. Pale drab brown, with crown and back dark streaked. White around eyes. Tail long, graduated faintly crossbarred, tipped white with a subterminal dark spot. Whitish below washed with buff. Sexes alike. **Distribution**: A common resident from the Himalayan foothills of Pakistan to Western Rajasthan and Gujarat through Punjab to the plains of the Ganges and Brahmaputra rivers. Two races. **Habits**: Affects riverain grass jungles and jheels as well as sandy semidesert country with scrub and coarse grass. Seen in pairs or small parties flying from bush to bush and on the ground. The male has a vertical flight display and a quick crackling, triple wing snapping *brrp-brrp-brrp*. **Food**: Insects largely grasshoppers, beetles, caterpillars, etc. **Call**: A wheezy warble sung from a vantage point. The black gape conspicuous while singing. **Nesting**: *Season* — February to October with two peaks in March-April and July-August. *Nest* — A domed or oval pouch with entrance two thirds up woven out of dry grass, vegetable down cobwebs, etc., placed in bushes or grass clumps a metre above ground. Nest site selection and construction largely by male. *Eggs* — 3 to 5, pale greenish profusely covered with reddish blotches. Both sexes participate in parental duties. Often two broods reared in a peak period.

459. **Tailor Bird** *Orthotomus sutorius* (Pennant)

Plate 57

Syn. No. 1535

Local names: *Darzee, Phutki, Piddi* (Hindi, Marathi); *Tashko, Darjido* (Gujarati); *Likka jitta* (Telugu); *Panakkuruvi* (Malayalam); *Thaiyal chittu, Pon chittu* (Tamil).

Size: Sparrow-. **Field Characters**: A small restless olive-green bird with whitish underparts, a rust coloured crown and two elongated pinpointed feathers in the tail (more developed in breeding male) which is carried jauntily cocked. Sexes alike. Singly or pairs, in shrubbery. **Distribution**: The entire Indian Union up to about 1500 m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Five races cover this area. **Habits**: Familiar and confiding. Equally at home in outlying scrub jungle or in gardens and shrubbery within a bustling town. Fearlessly enters verandas of occupied bungalows, hopping, amongst the trellised creepers and potted plants within a few feet of the inmates. **Call**: A loud cheerful *towit-towit-towit* or *pretty-pretty-pretty*, etc. **Food**: Tiny insects, their eggs and grubs; flower nectar of *Salmalia, Erythrina* and other trees. **Nesting**: *Season* — April to September, varying locally. *Nest* — a rough cup of soft fibres, cotton wool and vegetable down placed in a funnel fashioned by cleverly folding over and stitching along edges one or more large plant leaves. Usually under 1 metre up. *Eggs* — 3 or 4, reddish or bluish white, spotted with brownish red. Both sexes share domestic duties, but evidently female alone incubates.

460. **Pallas's Grasshopper Warbler** *Locustella certhiola* (Pallas)

ACN: Pallas's Warbler

Plate 57

Syn. No. 1543

Size: Sparrow-. **Field Characters**: Crown streaked grey and dark brown. A pale, conspicuous supercilium from lores to nape. Olive-brown above streaked with dark brown. Tail rounded, tipped white, under surface of tail blackish. Pale brown on breast and flanks. Sexes alike. **Distribution**: Winter visitor. Locally common in eastern India, otherwise sparsely distributed in the peninsula. Also Assam, Meghalaya, eastern Nepal, Calcutta and Central India, Andamans and Nicobars. Bangladesh; Sri Lanka. **Habits**: Affects swamps, reed beds and standing paddy. Very quiet and secretive. A confirmed skulker and difficult to see. Very silent in winter. **Nesting**: Extralimital.

461. **Bristled Grass Warbler** *Chaetornis striatus* (Jerdon)

ACN: Bristled Grassbird

Plate 58

Syn. No. 1547

Local names: *Grenta pitta* (Telugu); *Kantavali khad-fudki* (Gujarati).

Size: Sparrow+. **Field Characters**: Fulvous-brown boldly streaked with dark brown on back. Wing fulvous brown. A pale supercilium. Tail graduated, tipped whitish and sub-tipped black. Tail appears barred. Cream-buff below, sometimes with a dark necklace formed by shafts of breast feathers. Sexes alike. **Distribution**: A warbler of wet grasslands found throughout the subcontinent, but not in Sri Lanka. **Habits**: Affects coarse grassland interspread with thorny bushes, *Imperata* and other tall grass swamps and ricefields. Singly or in pairs. A confirmed skulker moving swiftly through grass and difficult to see. **Food**: Insects. **Call**: A pleasant musical *chwee chwee* uttered from an exposed position. **Nesting**: *Season* — May to September. *Nest* — a ball of dry grass with entrance near the top placed in grass or scrub on or near ground. *Eggs* — 4 or 5. Incubation by female.

462. **Striated Marsh Warbler** *Megalurus palustris* Horsfield

ACN: Striated Grassbird

Plate 58

Syn. No. 1548

Local names: *Takko, Jal-agin* (Hindi); *Nul chaypee* (Assam).

Size: Bulbul+. **Field Characters**: A large striated warbler with a long, pointed and graduated tail. Fulvous brown with streaked head and black stripes on back and wings. A pale supercilium. Fulvous tinged white below with fine brown streaks on flanks, breast and under tail-coverts. In fresh plumage underparts dull primrose yellow. **Distribution**: From Pakistan through the plains of north India to Arunachal, Assam, Nagaland, Manipur, Tripura; Bangladesh in the east. In the south up to the Tapti and the Mahanadi. **Habits**: Affects grass and reeds in swamps and ponds, and grasslands on river islands, cultivation, etc. Seen singly or in pairs. More visible than other grass warblers. Often seen perched on bushtops and reeds. Occasionally feeds on the ground. **Food**: Insects. **Call**: Song loud and harsh rendered as *oh where are you going!*. Also a clear long drawn-out whistle ending in an explosive *wheeechoo*. Call-note, a loud harsh *chat*. **Nesting**: *Season* — April to June. *Nest* — a rough ball of coarse grass lined with finer grass and placed low down in grass or reed clumps. *Eggs* — normally 4, pink marked with reddish brown.

463. **Thickbilled Warbler** *Acrocephalus aedon* (Pallas)

Plate 58

Syn. No. 1549

Local name: *Chundanbheri* (Malayalam).

Size: Bulbul. **Field Characters**: A plain fulvous olive-brown warbler, whitish buff below tinged with ochraceous on breast, flanks, and under tail-coverts. The shorter bill and absence of supercilium separates it from the Great Reed Warbler. Sexes alike. **Distribution**: Migrant winter visitor arriving in September and departing by end April. Widespread in the Peninsula and eastern India. Also Andamans and Nicobars. **Habits**: Affects marshes with tall grass, water-logged ground covered with bushes and grasses and undergrowth in light forest. Also seen in tea and coffee plantations. Solitary and secretive. **Food**: Insets. **Call**: A loud harsh *tschuk, tschuk*. A sharp *click click* and a distinctive harsh alarm call *chok-chok*. In winter quarters a monotonous and pleasing secondary song. **Nesting**: Extralimital.

464. **Indian Great Reed Warbler**
Acrocephalus stentoreus(Hemprich & Ehrenberg)

ACN: Clamarous Reed Warbler

Plate 58

Syn. No. 1550

Local names: *Karkat, Korkuch* (Kashmir); *Pan tiktiki* (Gujarati); *Bora-jitti* (Telugu); *Kaitakkallan* (Malayalam); *Kosu kattai, Nunni chirai* (Tamil).

Size: Bulbul. **Field Characters**: A large plain olive-brown warbler with a conspicuous whitish supercilium. Throat whitish, rest of underparts buff. Sexes alike. **Distribution**: Winter visitor from September to May over most of the subcontinent; Andamans. Breeding populations in Kashmir, N. India, W. Bengal and Kerala; also Sri Lanka. **Habits**: Affects reed beds and tall bushes around lakes, ponds, irrigation canals, mangrove swamps, *Pandanus* brakes, etc. Keeps singly or in pairs moving about in reeds close to water. A great skulker easily overlooked but for its *chur-r, chur-r* call uttered every few seconds. **Food**: Grasshoppers and other insects. **Call**: A spirited very loud and harsh *karra-karra-kareet-kareet-kareet*. A good mimic. **Nesting**: *Season* — May to August. *Nest* — a neat, deep and massive cup of dry reed leaves slung between several reed stems above water. *Eggs* — 3 to 6, greyish white or pale green marked with blackish brown. Both sexes share parental duties.

465. **Blyth's Reed Warbler** *Acrocephalus dumetorum* Blyth

Plate 58

Syn. No. 1556

Local names: *Podna, Tiktiki* (Hindi); *Pan tiktiki* (Gujarati); *Tikra* (Bengali); *Kumpa jitta* (Telugu); *Eetapolappan* (Malayalam).

Size: Sparrow-. **Field Characters**: A smaller replica of the Great Reed Warbler. Olive-brown above with a pale supercilium. Throat white, rest of underparts buff. **Distribution**: Breeds in Pakistan north of Quetta. A common winter migrant throughout the rest of the subcontinent from September to April. Also Sri Lanka; Bangladesh. **Habits**: Seen commonly

on bushes often far from water. Keeps singly hopping about and creeping through bushes, its presence only betrayed by its distinctive call. **Call**: A harsh single *chuk* given every few seconds while foraging. **Nesting**: Mainly extralimital.

466. **Paddyfield Warbler** *Acrocephalus agricola* (Jerdon)

Plate 58

Syn. No. 1557

Local names: *Yerra-kumpa-jitta* (Telugu); *Patakkuruvi* (Malayalam).

Size: Sparrow-. **Field Characters**: Rufous-brown above with a paler, brighter rump. An indistinct pale supercilium. Throat whitish, rest of underparts ochraceous buff. **Distribution**: Breeds in Pakistan. Widespread winter visitor from October to March. Bangladesh; not Sri Lanka. **Habits**: Affects standing rice, reedbeds, sugarcane and elephant grass in water or on wet ground. Singly in thick cover; when flushed skims over the vegetation and dives into the cover, spreading its tail when the rufous rump shows up prominently. **Food**: Insects. **Call**: A characteristic, harsh *chr..chuck* constantly uttered. **Nesting**: Extralimital except for a small breeding population in Malazia Lora, north of Quetta in Pakistan.

467. **Booted Warbler** *Hippolais caligata* (Lichtenstein)

Plate 58

Syn. No. 1562

Size: Sparrow-. **Field Characters**: Pale olive-brown above. A short whitish supercilium. Buffish white below. Sexes alike. Easily confused with the darker and slightly larger Paddyfield and Blyth's warblers. **Distribution**: Two races — while race *rama* breeds in Sind, Baluchistan, and W. Punjab, the nominate race migrates from beyond the boundaries of the subcontinent. A common and widespread winter visitor from September to April. Bangladesh; Sri Lanka. **Habits**: Affects areas where acacias, bushes or scrub abound. Partial to semi-desert country. Usually seen singly or small flocks, restlessly foraging among leaves and flowers of *Acacia* or *Prosopis*. Resembles leaf warblers in behaviour and movements. **Food**: Insects. **Call**: A harsh *chuck ... chuck* or *churr ... chur* somewhat resembling the call of the Lesser Whitethroat. **Nesting**: *Season* — May to July. *Nest* — a cup of twigs, grass roots and stems lined with fine grass, wool, hair and vegetable down; well hidden in bushes or grass clump. *Eggs* — normally 3 or 4, sometimes 5, pinkish white to pale grey, with purple or black specks and spots. Both sexes share domestic duties.

468. **Orphean Warbler** *Sylvia hortensis* (Gmelin)

Plate 58

Syn. No. 1565

Local names: *Gaz burruck* (Brahuli); *Moto shveta kanta* (Gujarati); *Pedda nalla kampa jitta* (Telugu).

Size: Between Sparrow and Bulbul. **Field Characters**: A slender, bush-haunting, arboreal bird, slaty grey above buffy white below, with a black skull cap covering eyes and ear-coverts. Tail black, partly white-tipped and with outer feathers largely white; conspicuous in flight. In female cap dark grey. Singly, in babool scrub on waste land about cultivation, or amongst thorn bushes in semi-desert country. **Distribution**: Eastern race *jerdoni* breeds in NW Pakistan, Afghanistan to Iraq; winters in Pakistan and India east to Bihar-Orissa,

south to Tamil Nadu (Tiruchirapali). **Habits**: Insectivorous, shy, skulking. Hops singly amongst thorny bushes hunting insects and caterpillars, occasionally descending to ground. Fond of flower nectar; feeds regularly from blossoms of wild caper (*Capparis aphylla*) and probably effects cross-pollination. **Call**: A harsh *chuck, chuck*, varied sometimes by a longer *chichirichich*. In breeding season male has a magnificent warbling song delivered from bush-tops, etc. **Nesting**: *Season* — May/June. *Nest* — a deep cup of grass and leaves, lined with finer grass, often plastered outside with vegetable down; 1 to 2 m up in a bush. *Eggs* — 3 to 5, greenish white, speckled and blotched with blackish and grey chiefly at the broad end.

469. **Lesser Whitethroat** *Sylvia curruca* (Linnaeus)

Plate 58

Syn. No. 1567

Local name: *Chinna nalla kampa jitta* (Telugu).

Size: Sparrow-. **Field Characters**: Earthy brown above, whitish below, purer white on the throat. The darker, greyer cap on the head contrasting with brown back and sharply cut off from the throat serves to accentuate the latter's whiteness. White edges and tip of tail, conspicuous in flight, are further pointers. Sexes alike. Singly, in thorn scrub and babool trees in and about fallow cultivation and waste land, and semi-desert country. **Distribution**: The race *blythi* is a winter visitor practically throughout the plains of Pakistan, and northern and peninsular India; east to W. Bengal, south to Sri Lanka. Breeds in Siberia east to Manchuria, south to Tien shan and Altai. The race *althaea* breeds from Murree Hills, west to NWFP and south through N. Baluchistan in Pakistan, and Kashmir in Astor, Gilgit and Ladakh between 1500 and 3700 m. **Habits**: Similar, in general, to those of the Orphean Warbler. Creeps or flits restlessly amongst tangles of twigs and foliage in search of caterpillars and insects. In common with leaf- and tree warblers (*Phylloscopus* and *Hippolais*) has an amusing trick, while hunting, of lunging out at an insect just out of reach of the bill and nearly toppling over in the attempt. It also feeds regularly on the nectar of *Capparis* flowers. **Call**: A subdued *tek ...tek*, like the low clicking of one's tongue against the palate, uttered very few seconds. Usually no song in its winter quarters.

470. **Largebilled Leaf Warbler** *Phylloscopus magnirostris* Blyth

Plate 58

Syn. No. 1601

Local names: *Deru* (Kohat); *Viri tiriv* (Kashmir).

Size: Sparrow-. **Field Characters**: The largest of all Indian leaf warblers with a single very faint wing bar. Brownish olive above with a prominent yellowish supercilium and dark eye streak. Cheeks mottled yellow and dusky. Below yellowish white sullied with grey on breast and throat. Sexes alike. Best distinguished from other warblers by the call notes. **Distribution**: Breeds in the Himalayas between 1800 and 3600 m in summer from Pakistan (NWFP), possibly to Arunachal Pradesh. Winters in the Sholas and evergreen forests of the hills of south India. Also NE. India, Andamans and Sri Lanka. **Habits**: Keeps singly to the crowns of medium sized trees. Unobtrusive and difficult to see. **Food**: Insects. **Call**: Distinctive *dir-tee* or *wee-chi*, second note higher than first. **Nesting**: *Season* — June to August. *Nest* — a rough dome of grass, moss, etc., lined with grass placed under a fallen log or rock crevices. *Eggs* — Usually 4, white.

471. **Dull Green Leaf Warbler**
Phylloscopus trochiloides (Sundevall)

Plate 58

Syn. No. 1602

Size: Sparrow-. **Field Characters**: A single faint wing bar. Dull greenish above with a well-marked yellowish supercilium and dark eye streak. Cheeks mottled olive and yellowish. Sullied yellowish white below. Sexes alike. **Distribution**: Breeds in the Himalayas from Pakistan east to Arunachal Pradesh between 2700 and 3700 m, south to Nagaland and Assam Hills. Winters throughout the Peninsula and the Andamans; Bangladesh; Sri Lanka. **Habits**: In summer among willow, tamarisk and poplar groves. In winter frequents gardens, wooded compounds, acacia groves, open deciduous and evergreen forests. Singly and in the company of foraging parties of small insectivorous birds bustling energetically among leaves. **Food**: Insects including caterpillars. **Call**: Call-note while foraging a squeaky *chiwee* or *sichiwee*. **Nesting**: *Season* — May to August. *Nest* — a ball of moss, lichen, dead leaves lined with grass placed among roots of trees or hollow of tree trunks. *Eggs* — 3 or 4, white. Female incubates. Both sexes feed nestlings.

472. **Bluethroat** *Erithacus svecicus* (Linnaeus)

NN: *Luscinia svecicus* (Linnaeus)

Plate 59

Syn. No. 1644

Local names: *Nyul hot (Kashmir); Nil kanthi, Hussaini Pidda* (Hindi); *Dumbak* (Sind); *Gunpigera, Gurpeorah* (Bengal).

Size: Sparrow. **Field Characters**: A sprightly, robin-like olive-brown bird with whitish eyebrow and moustachial streaks. Adult male has brilliant blue throat with a white or chestnut patch in the middle; female and young male merely a gorget of brown spots across the whitish breast. In both sexes the black-tipped orange-chestnut tail is conspicuous in flight, and when spread. Singly on damp ground, in tamarisk beds, reedy tank margins, sugarcane fields, etc. **Distribution**: Winter visitor from N. Europe and N. Asia practically throughout India; Bangladesh; Pakistan; Sri Lanka. Only one race (*abbotti*) breeds within the subcontinent limits (Gilgit, Baltistan, Ladakh, Kashmir). This form is dimorphic usually having a white spot on the blue, but sometimes red. **Habits**: Hops about quietly with tail cocked and wings drooping, at the water's edge or in and out of marshy reeds and bushes, stopping every now and again to pick up an insect. When alarmed or suspicious the head and tail are lowered and the bird scuttles away with a rapid mincing gait, erecting itself every few feet to scan the intruder. **Food**: Mostly caterpillars, tiny beetles and other insects. **Call**: In winter only a harsh subdued *chur-r* or *chuck, chuck*. In summer (breeding) a sweet, loud, and rich song delivered by the male from a bush or other perch, or in his pipit-like display flight. **Nesting**: *Season* — In Ladakh, June/July. *Nest* — a deep cup of dry grass on wet ground, hidden amongst grass and scrub. *Eggs* — 4, sometimes 3, olive-green to olive-brown, minutely freckled all over with pale dull light reddish.

473. **Rubythroat** *Erithacus pectoralis* (Gould)

NN: *Luscinia pectoralis* (Gould)

Plate 59

Syn. No. 1643

Local names: *Gangula* (Nepal); *Yaquat hot* (Kashmir).

Size: Sparrow+. **Field Characters**: *Male*: Brownish slaty above; forehead and supercilium white. Wings brown; tail blackish brown with white base and tips. Chin and throat scarlet. Sides of throat and breast black. Belly and under tail-coverts white. *Female*: Grey brown with white supercilium and eye ring. Tail blackish brown with white tips. Breast smoky grey below fading to white lower down. **Distribution**: Breeds in the Himalayas. Winters in the Himalayan foothills and eastern India. Also Bangladesh. Occasional vagrants to the Peninsula. **Habits**: Affects dwarf scrub above timberline in summer. Dense scrub and long grass jungle in winter. Solitary in the non-breeding season. Secretive. Feeds on the ground. **Food**: Chiefly insects, spiders, mollusc and small reptiles. **Call**: A loud shrill but attractive song. Call-note: A harsh *ke*. **Nesting**: *Season* — May to August. *Nest* — a domed nest with side entrance of dry grass well concealed under shrubs or among rocks. *Eggs* — 4, blue green. Both sexes share parental duties.

474. **Blue Chat** *Erithacus brunneus* (Hodgson)

Plate 59

Syn. No. 1650

Local name: *Manzhil pho* (Lepcha).

Size: Sparrow+. **Field Characters**: *Male*: Slaty blue above with a conspicuous white supercilium. Lores and cheeks black. Throat, breast and flanks bright chestnut or ochraceous, throat bordered with black. Centre of belly and under tail-coverts white. *Female*: Olive brown above. White washed with ochraceous below. **Distribution**: Breeds (May to September) in the Himalayas from NWFP to Arunachal Pradesh and the hills of Nagaland, Manipur, Assam and Meghalaya. Winters in SW.India and Sri Lanka (October to April). **Habits**: Breeds between 1600 m and 3300 m in dense undergrowth of rhododendron forests etc. In winter frequents almost exclusively evergreen forests; partial to Rubus, Pandanus and Calamus brakes. Terrestrial, forest haunting and unobtrusive. Keeps singly in heavy undergrowth. **Food**: Insects. **Call**: Alarm note guttural *tuck-tuck*. Song consists of a rapid trill *jerri-jerri-jerri quick-quick-quick* repeated 3 or 4 times in ascending scale. **Nesting**: *Season* — May to July. *Nest* — a cup of moss, dry grass lined with fur, hair, etc., well concealed on the ground. *Eggs* — 4, blue. Incubation by female. Feeding by both sexes.

475. **Magpie-Robin** *Copsychus saularis* (Linnaeus)

ACN: Oriental Magpie-Robin

Plate 59

Syn. No. 1661

Local names: *Dhaiyal, Dhaiyar* (Hindi, Bengali); *Daiyad* (Gujarati); *Dominga* (Marathi); *Kabro* (Bhi); *Kali sooi chiria* (M.P.); *Zannid-pho* (Lepcha); *Pedda nalanchi, Sarela-gadu* (Telugu); *Hatiure* (Munda); *Deyalo* (Oraon).

Size: Bulbul. **Field Characters**: A trim black-and-white bird with cocked tail as in Indian Robin. Black portions of male replaced by brown and slaty grey in female. Singly or in pairs, about human habitations. **Distribution**: The Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Up to about 2500 m elevation. Absent in arid areas, e.g W. Rajasthan and parts of Pakistan. Three races, on minor size and colour differences. **Habits**: One of the more familiar birds about towns and villages. Shy, silent and unobtrusive during non-breeding season, then skulking in shrubbery and only uttering plaintive *swee-ee* and harsh *chur-r*. Conspicuous during breeding season when male sings lustily from favourite tree-top or post, chiefly early mornings and late afternoons. Song punctuated by upward jerks of white-fringed tail. Also very good mimic of other birds' calls. Breeding territories jealously guarded, and intruding males defied with puffing-out, strutting and much show of pugnacity. **Food**: Insects, chiefly picked off the ground, and flower nectar as of *Salmalia* and *Erythrina*. **Nesting**: *Season* — India: April to July; earlier in the south. Sri Lanka: November to August. *Nest* — a pad of grass, rootlets, hair, etc., in hole in old wall, tree-trunk or bough, 2 to 7 m up. *Eggs* — 3 to 5, pale blue-green, blotched and mottled with reddish brown. Female incubates; male shares other domestic chores.

476. **Shama** *Copsychus malabaricus* (Scopoli)

ACN: Whiterumped Shama

Plate 59

Syn. No. 1665

Local names: *Shama* (Hindi); *Shyama* (Gujarati); *Shamakkili* (Malayalam).

Size: Bulbul; relatively longer tailed. **Field Characters**: An unmistakable cousin of the Magpie-Robin with chestnut underparts instead of white. A conspicuous white patch above root of black-and-white graduated tail diagnostic in flight. Black portions of male replaced by slaty brown in female. Singly, in deep forest. **Distribution**: Patchy but general in the forested tracts of the Indian Union (including Andamans); Bangladesh; Sri Lanka; Myanmar. Up to about 1200 m elevation. Four races, on comparative tail lengths and coloration details. **Habits**: Affects forest-clad foothills, where shady ravines are its favourite haunts. In all respects a forest representative of the Magpie-Robin with closely similar habits; but shy and retiring and normally avoids human habitations, therefore more familiar as a cage bird than in its wild state, and much prized as a songster. Has a loud, clear and melodious thrush-like song, rich in notes and quality. **Food**: Chiefly insects, picked off the ground or among bushes. **Nesting**: *Season* — principally April to June. *Nest* — a shallow cup of rootlets, grass, bamboo leaves, etc., in natural hollows in tree-trunks or in the tangled base of a bamboo clump. *Eggs* — 3 or 4, very like the Magpie-Robin's.

477. **Black Redstart** *Phoenicurus ochruros* (S.G. Gmelin)

Plate 59

Syn. No. 1671

Local names: *Thirthira, Thirthir-kampa* (Hindi); *Phirira, Lal-girdi* (Bengali); *Nune bundi gadu* (Telugu); *Kankal* (Munda).

Size: Sparrow. **Field Characters**: A slim active black and orange-chestnut bird, constantly shivering its tail (orange-chestnut) and dipping forepart of body. Female, brown and paler generally, also with orange-chestnut tail. Singly, in stony sparsely scrubbed country and groves of trees. **Distribution**: In winter more or less throughout the Indian Union; Bangladesh; Pakistan; Myanmar. Plains and hills. Not Sri Lanka. Two races visit us, the more widely spread (*rufiventris*) having crown and upperparts less grey-fringed. **Habits**: Met with between September and April around villages and cultivation, in groves of trees, stony hummocks and dry scrub jungle. Flits from perch to perch on roof-top, boulder or branch, ceaselessly shivering its tail. **Food**: Insects and spiders, etc., usually picked off the ground. Winged insects sometimes captured in the air like a flycatcher. **Call**: Usual call, a sharp, mousy *whit ... whit ... whit,* etc., reminiscent of a squeaking unoiled bicycle wheel revolving at moderate speed. In the breeding season the male utters a pleasant little song. **Nesting**: *Season* — in the Himalayas between 3,300 and 6,000 m and beyond from Iran to Mongolia, May to August. *Nest* — a loose cup of grass, moss, hair, wool and feathers, in hole in earth-bank, under a rock or amongst piled stone boundary walls and chortens. *Eggs* — 4 to 6, from white to pale blue-green, unmarked.

478. **Brown Rock Chat** *Cercomela fusca* (Blyth)

ACN: Indian Chat

Plate 59

Syn. No. 1692

Local names: *Dauma* (U.P.); *Kalo patharal piddo* (Gujarat); *Shama* (Hindi in M.P.).

Size: Sparrow+. **Field Characters**: Plain brown above, rufous-brown below with darker wings and blackish tail. Separated from the Indian Robin by the absence of the chestnut patch under the tail. Likely to be confused with the female Blue Rock Thrush in flight and while alighting. **Distribution**: Resident in Pakistan and NW. India south to Narmada river, Uttar Pradesh, Bihar to W. Bengal. **Habits**: Keeps to rocky hills, ravines, ruins, and in compounds of bungalows. Seen singly or in pairs. Usually tame and confiding. Feeds on the ground. **Food**: Insects. **Call**: A short whistling *chee* while bobbing the forepart of body. In breeding season has a sweet thrush-like song. A good mimic. **Nesting**: *Season* — February to August. *Nest* — a rough cup of rootlets, etc., placed in a rock cleft, hollow in walls, etc. *Eggs* — 3 or 4, pale blue with rusty specks and spots. Female only incubates. Up to three broods may be raised in a season.

479. **Collared Bushchat** or **Stone Chat**
Saxicola torquata (Linnaeus)

Plate 59

Syn. No. 1695

Size: Sparrow. **Field Characters**: Male with black head, orange-brown breast, and prominent white patches on sides of neck (the 'collar'), shoulders, and above root of tail. Female like that of the Pied Bushchat but dark-streaked on upperparts. Separated pairs, in open country, about cultivation and reedy marshes. **Distribution**: In winter throughout the Indian Union; Bangladesh; Pakistan; Myanmar. Plains and hills. Not Sri Lanka. Of the four races occurring here, only two breed within our limits, in the Himalayas between about 700 and 3000 m. **Habits**: Seen in its winter quarters between September and April. Singly or pairs in open country, fallow land, reedy margins of tanks and marshes, and among mangroves and sea-holly patches bordering tidal creeks on the coast. Food and feeding habits similar to other chats. Constantly flicks open tail up and down, as it watches for insect prey from a bush-top or reed stem. Utters *chek, chek* but the pretty breeding song of the male is also occasionally heard while the birds are with us. **Nesting**: *Season* — in the Himalayas April to July. *Nest* — like the Pied Bushchat's, a pad of grass, hair and wool in a hole in an earth-bank or under a stone. Often placed among the piled stone boundary walls of hillmen's fields. *Eggs* — 4 to 6, not markedly different from those of the Pied Bushchat.

480. **Whitetailed Bush** or **Stone Chat** *Saxicola leucura* (Blyth)

Plate 59

Syn. No. 1699

Size: Sparrow-. **Field Characters**: Black above, except for white rump and tail. Throat black. Breast rufous chestnut. Belly buff. Female rufous brown streaked with dark brown. **Distribution**: Resident from Pakistan eastwards, fairly common in the Kumaon terai, Gangetic plain in Bihar, northern W. Bengal and plains of the Bramahputra and Bangladesh. Winter record from Peshawar, Nepal (terai) and Orissa. Not Sri Lanka. **Habits**: Essentially a bird of the plains, ascending into foothills barely 700 m. Affects high grass, reeds, in the vicinity of large rivers. Apparently confined to areas subject to seasonal inundation. Usually perches on top of high grass or bush, descending to the ground for insects. Generally quite shy. **Food**: Insects. **Call**: Alarm call a short *peep-chaaa*. Song short like a lark's. **Nesting**: *Season* — March to May before the summer floods. *Nest* — a cup of grass, moss, etc., concealed in a tangled mass of grass or roots of grass close to water. *Eggs* — 3, pale greyish blue spotted with red.

481. **Pied Bush Chat** *Saxicola caprata* (Linnaeus)

Plate 59

Syn. No. 1700

Local name: *Kumpa nalanchi* (Telugu).

Size: Sparrow. **Field Characters**: Male black, with white patches on rump, abdomen and wings, the last particularly conspicuous in flight. Female earth-brown with pale rusty coloured rump. Separated pairs on bush tops, etc., in open country. **Distribution**: Patchy. Resident or winter visitor throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and hills up to about 2500 m. Four races, on size of bill and extent of

white on underparts. **Habits**: Affects sparsely scrubbed country and hillsides, commonly in the neighbourhood of cultivation and villages. From an exposed perch on a stake or bush-top darts down to the ground to pick up insect prey. Sometimes springs up into the air or makes short sallies after winged insects. Utters a harsh *chek, chek* ending in a subdued *tweet*. In breeding season male delivers a pretty whistling song resembling Indian Robin's or Crested Bunting's from a perch or during the display flight with 'delayed action' wing-beats as in a pigeon 'clapping'. Song also uttered as threat to rival male with tail depressed and neck craned forward menacingly, white rump fluffed out and wings drooped, flaunting the white shoulder-patches. **Nesting**: *Season* — mostly between February and May. *Nest* — a pad of grass lined with hair or wool, in hole in ground, or earth-cutting. *Eggs* — 3 to 5, usually pale bluish white, speckled and blotched with reddish brown. Only female incubates, but male occasionally helps in building nest, and shares in feeding young.

482. **Jerdon's Bush Chat** *Saxicola jerdoni* (Blyth)

Plate 59

Syn. No. 1704

Size: Sparrow. **Field Characters**: *Male* entirely glossy black above. Entirely white below. *Female* brown tinged with rufous especially on rump. Throat white, rest of underparts fulvous. **Distribution**: Resident and locally common from eastern Bihar and Nepal east, foothills of Arunachal Pradesh, NE.states; Bangladesh, Myanmar. **Habits**: Affects the vast grasslands in the plains and foothills up to 700 m. A typical bush chat keeps singly or in pairs. Shy. Seen perched on reed stems or bushes. **Food**: Insects. **Call**: A silent bird. Only note recorded is a *chirr* alarm call. **Nesting**: *Season* — February to May. *Nest* — a cup of rootlets placed on the ground among roots or in the hollow of a bank. *Eggs* — Normally 4, deep turquoise blue.

483. **Desert Wheatear** *Oenanthe deserti* (Temminck)

Plate 60

Syn. No. 1710

Local name: *Rann piddo* (Gujarati).

Size: Sparrow. **Field Characters**: Crown and back sandy buff, a pale supercilium. Upper tail-coverts and basal half of tail creamy white, rest of tail black. Wings blackish brown. Throat and sides of head black, otherwise underparts buff white. Female greyer with wings and tail lighter brown with rufous-brown ear-coverts. **Distribution**: Breeds in Pakistan (Baluchistan) and in Kashmir, Baltistan, Ladakh, Lahul, Spiti and NW. Nepal (Dolpo) between 3000 and 5100 m to rest of the Indian Union down to Tamil Nadu (Madras); also Sri Lanka. Winter visitor down to Central Maharashtra and Northern Andhra Pradesh. **Habits**: Affects arid semi-desert broken tracts, either sandy, rock or with dunes. Also ploughed and fallow land in desert colonies. Usually perches on a small eminence or low bush. Feeds on the ground or flies up after insects. **Food**: Insects, largely beetles. **Call**: Song variable and imitative. Alarm call *chi-ti-ti*. **Nesting**: *Season* — April to June. *Nest* — of grass, lined with finer grass, placed in a hole in a bank or rock face, or under heap of stones. *Eggs* — 4-6, faint to deeper blue, with rust spots at large end.

484. **Isabelline Chat** *Oenanthe isabellina* (Temminck)

Plate 60

Syn. No. 1706

Size: Sparrow+. **Field Characters**: Sandy brown above with plae supercilium and eye ring. Wings dark brown, buff edged. Upper tail-coverts and base of tail glistening white, tail otherwise blackish brown narrowly buff tipped. Pale creamy buff below. **Distribution**: Fairly common winter visitor from September to March to the plains of north west India, east to Varanasi, south to Ahmednagar, Pune. **Habits**: Affects sandy semi desert. Solitary and territorial. Runs about swiftly on the ground, blocking occasionally. Sits upright on mound or low bushes. **Food**: Insects. **Calls**: A soft song may be heard in its winter quarters. **Nesting**: Extralimital. Breeds in Baluchistan in the Indian Region. *Season* — March to June. *Nest* — a shallow saucer of grass, wool, etc., in a rat hole or bee-eaters hole. *Egg* — generally 5, reddish brown with spots. Both sexes feed the young.

485. **Indian Robin** *Saxicoloides fulicata* (Linnaeus)

Plate 60

Syn. No. 1717

Local names: *Kalchuri* (Hindi); *Dachko* (Bhil); *Deoli, Kali deva* (Gujarati).

Size: Sparrow+. **Field Characters**: A sprightly black bird with a white patch on wing (more conspicuous in flight) and rusty red under root of cocked tail. Hen ashy brown without the wing-patch. Pairs, in dry open lightly wooded country. **Distribution**: The Indian Union; Bangladesh; Pakistan; Sri Lanka. Plains and hills up to about 1500 m. Five races, on minor differences of size and coloration: brownbacked in north, blackbacked in Sri Lanka. **Habits**: Familiar and confiding. Frequents stony scrub country around towns and villages, commonly perching on thatched roofs of huts and entering verandas to pick up insects. Hops along the ground, mounting a rock, termite mound or fencepost and tossing upward the jaunty cocked tail. The male utters some cheery notes — but no song as such — chiefly during courtship display. **Food**: Insects and their eggs, spiders, etc. **Nesting**: *Season* — April to June; earlier in the south. *Nest* — a pad of grass, rootlets and rubbish lined with feathers or hair, often with bits of snake slough as adornment. Placed under stone, in hole in earth-bank or tree-stump, or within a derelict tin can or earthen pot. *Eggs* — 2 or 3, creamy white, sometimes tinged greenish speckled and blotched with ruddy brown. Female alone incubates; male shares other domestic duties.

486. **Blueheaded Rock Thrush** *Monticola cinclorhynchus* (Vigors)

ACN: Bluecapped Rock Thrush

Plate 60

Syn. No. 1723

Local names: *Pala tiriv* (Kashmir); *Krishen-patti* (Nepal); *Daohangar* (Cachari); *Vohtigle* (Mikir); *Hengmeruine* (Kacha Naga); *Parakkili* (Malayalam).

Size: Bulbul. **Field Characters**: Head, chin and throat blue. Upperparts blue and black; rump and underparts chestnut. A white patch on wing conspicuous, particularly in flight. Female plain brown above with barred rump and brown-and-white scaly patterned underside. Singly, in light forest. **Distribution**: In winter more or less throughout India and Pakistan;

particularly common in the Western Ghats country. Parts of Myanmar. Not Sri Lanka. Summer (breeding) visitor from NWFP, Gilgit, east to Arunachal Pradesh and hills of Nagaland, Assam and Meghalaya. **Habits**: Affects light deciduous and bamboo jungle (October-April). Also moister localities, but seldom if ever within dense evergreen forest. Partial to cardamom and coffee plantations in S. India. When disturbed, flies up silently into an overhanging branch and sits motionless. Silent in its winter quarters. Breeding males have a loud, clear and rich though rather monotonous whistling song. **Nesting**: Breeds throughout the Himalayas chiefly between 900 to 3000 m. *Season* — April to June. *Nest* and site similar to the Blue Rock Thrush's. Sometimes placed under exposed roots of a tree. *Eggs* — normally 4, pinkish white, closely stippled with pale reddish brown, heavily at the larger end.

487. **Blue Rock Thrush** *Monticola solitarius* (Linnaeus)

Plate 60

Syn. No. 1725

Local names: *Pala tririv* (Kashmir); *Pandu* - Male, *Maal* - female (Marathi); *Podakachi pitta* (Telugu); *Parakkili* (Malayalam); *Ningri-pho* (Lepcha); *Daohangar* (Cachari); *Hengmeruine* (Kacha Naga); *Vohtigle* (Mikir).

Size: Bulbul. **Field Characters**: Male bright indigo blue. Female grey-brown above, whitish below cross-barred with dark brown, and with a pale wing-bar. Solitary, on boulders, ruins, stone quarries, etc. **Distribution**: In winter practically throughout the Indian Union, Andamans and Car Nicobar; Bangladesh; Pakistan; Sri Lanka; Myanmar. Chiefly the Himalayan breeding race *pandoo*. One other race occasionally straggles in just across our northern borders. **Habits**: Sedentary. Frequents boulder-strewn hillsides, rock scarps, ruins of forts and ancient buildings, and even occupied dwellings in towns and villages from October to April. Keeps to the same neighbourhood day after day, and even in successive seasons. Perches bolt upright, bows jerkily and flirts tail in manner of Redstart. Sallies down to ground to pick up an insect. If too large to dispose off on the spot, flies back and whacks it against the perch before swallowing. Mostly silent, but the male's sweet whistling song sometimes heard just before the birds depart for their breeding grounds. In silhouette, during flight and while alighting, may look confusingly like Brown Rock Chat (*Cercomela fusca*). **Food**: Mainly insects; also berries. **Nesting**: *Season* — In Kashmir, Garhwal, etc., the Indian race *pandoo* breeds between 2000 to 3000 m, April to June. Nest — a rough pad of grass, moss and leaves in holes in cliffs or banks, or amongst piled-stone parapet walls. *Eggs* — 3 to 5, pale blue speckled with brownish red.

488. **Malabar Whistling Thrush** *Myiophonus horsfieldii* (Vigors)

Plate 60

Syn. No. 1728

Local names: *Kasturo, Indraraj* (Hindi); *Gogi* (Marathi); *Bhangraj* (Hindi, M.P.); *Gunta-ukkee* (Kannada); *Singala karewe* (Telugu); *Chulakakka* (Malayalam); *Sikaram* (Tamil).

Size: Myna+; Pigeon-. **Field Characters**: A blue black thrush with patches of glistening cobalt blue on forehead and shoulders, and black bill and legs. Sexes alike. Singly or pairs, on rocky hill streams. **Distribution**: Western Ghats, Pachmarhi (Madhya Pradesh),

Sambalpur (Orissa), Shevaroy Hills (Tamil Nadu). Also hills of W. Gujarat (Mt. Abu, Himatnagar. Not Sri Lanka. **Habits**: A denizen of well-wooded rocky hill streams, both near and away from human habitations. Silent in winter except for a sharp *kree-ee* uttered in flight. In breeding season male has a rich and remarkably human whistling song, rambling aimlessly up and down the scale, whence the bird gets its popular name of 'Idle Schoolboy'. It is one of the earliest and latest diurnal bird songs. Seemingly a wanderer within its distributional range. An individual ringed at Mahabaleshwar (Maharashtra) was recovered 650 km south of the ringing point in N. Coorg in Karnataka. **Food**: Chiefly aquatic insects, snails and crabs. The latter are purposefully battered on the rock to remove their shells. **Nesting**: *Season* — February to August, varying with locality. *Nest* — a large, compact pad of roots and grasses reinforced with mud. Placed on a shelf or ledge of precipitous rock flanking a hill torrent. *Eggs* — 3 or 4, pale buff or greyish stone, blotched and speckled with greyish brown and lavender. Both sexes share parental duties.

489. **Himalayan Whistling Thrush** *Myiophonus caeruleus* (Scopoli)

Plate 60

Syn. No. 1729

Local names: *Hazar dastan, Kastur, Kava kunur* (Kashmir); *Narel* (Kangra); *Kastura* (Himachal Pradesh); *Kuljel, Kaljit* (Duns); *Kholchara* (Paharia); *Chamong-pho* (Lepcha); *Tetiman* (Bhutanese); *Simtung* (Khasia); *Di-daokat Gashim* (Cachari).

Size: Pigeon. **Field Characters**: Entirely dark purple-blue spotted with glistening blue. Forehead, shoulders, edge of wing and tail brighter blue. White spots on wing-coverts. Bill yellow (*v.* black in *M. horsfieldii*), and lacks the cobalt shoulder patches. **Distribution**: Resident. From mountain ranges of Pakistan (Baluchistan) east to Arunachal Pradesh, hills of NE. India; Bangladesh; Myanmar. **Habits**: Affects rivers and torrents in heavy forest. Singly or pairs. A conspicuous bird of torrential hill streams. Unlike Malabar Whistling Thrush often seen at considerable distances from water. **Food**: Snails, crabs, earthworms, insects and small animals. **Call**: Call-note a strident *tzeet-tze-tze-tzeet*. Song a very human thin whistle which follows a definite pattern. **Nesting**: *Season* — April to August. *Nest* — a bulky cup of green moss lined with rootlets placed on a ledge or a hollow or a crevice amidst a rushing stream. Also on beams and rafters in isolated bungalows. *Eggs* — 3 or 4, pale olive-grey or buff freckled with red. Both sexes share parental duties.

490. **Orange-headed Ground Thrush**
Zoothera citrina citrina Latham

Plate 60

Syn. No. 1733

Local names: *Malagir* (Kangra), *Dama* (Bengali), *Daokai-gajavaiba* (Cachari).

Size: Myna-; length *c.* 21 cm (8.5 in.). **Field Characters**: Head, neck and underparts orange chestnut. Vent and under tail-coverts white. A white wing bar. Above bluish grey. Outer rectrices tipped white. Female with the mantle tinged olive brown. **Distribution**: A partial migrant, breeds in the Himalayas and eastern India. Winters in the peninsula. Passes through Pt.Calimere, Tamil Nadu, in October, apparently enroute to Sri Lanka. **Habits**: Singly or in pairs. Shy. Feeds on the ground in dense undergrowth. **Food**: Insects, worms,

especially earthworms, berries and fruit. **Call**: Has a loud, sweet and loud including imitations of other bird calls. Usually from April to August. **Nesting**: *Season* — May-June. *Nest* — a thick pad of moss placed in the fork of a tree. *Eggs* — 3 or 4, exceptionally 5.

491. **Whitethroated Ground Thrush**

Zoothera citrina cyanotus (Jardine & Selby)

Plate 60

Syn. No. 1734

Size: Myna. **Field Characters**: A plump, short-tailed, long-legged thrush with yellowish brown head, neck and underparts. Rest of upperparts slaty blue. A large white patch on wing conspicuous in flight. Throat and sides of head white, banded obliquely with black. Female has the slaty blue portions suffused with olive-green. Singly, on ground in light forest, flying up silently into branches when disturbed. **Distribution**: Resident and moves about a great deal locally, particularly during the monsoon. India from south eastern Gujarat, Madhya Pradesh (Satpura range), Orissa south to Tamil Nadu and Kerala. Not Sri Lanka. **Habits**: Mainly terrestrial. Affects forest, both deciduous and evergreen, and partial to overgrown ravines and nullahs. Digs in the mulch for insects and windfallen berries. Silent in winter except for the sharp *kree-ee* typical of the thrushes. Breeding males have a rollicking whistling song of several rich notes, often repeated, into which imitations of other birds' calls are cleverly interwoven. **Nesting**: *Season* — June-July. *Nest* — a shallow cup of moss, roots and grass sometimes mixed with a little mud, in a tree 1 to 5 m up. *Eggs* — 3 or 4, pale bluish or creamy white, blotched and freckled with pale reddish, more densely at the broad end.

492. **Blackbird** *Turdus merula* Linnaeus

ACN: Eurasian Blackbird

Plate 60

Syn. No. 1753

Local name: *Karimkili* (Malayalam).

Size: Myna. **Field Characters***: A plain grey-brown bird with a black cap, and orange-yellow bill, legs and a ring round eye. Female paler and more ashy, with brown cap. Singly or lose parties, in foothills forest. **Distribution**: Practically the whole subcontinent. Four races in India and Pakistan, and one in Sri Lanka, on details of coloration and wing formulae. **Habits**: Resident of well-wooded hills to about 1500 m elevation, wandering down into plains during winter. Often seen in groves and jungle in the neighbourhood of towns and villages. Hops about on the ground turning over and flicking aside dry leaves in search of insects and windfallen fruit. Also feeds in trees on drupes and flower nectar. During winter only utters a sharp, high-pitched *kree-ee* and throaty *chuk-chuk-chuk*. In the breeding season, male has a loud, rich, melodious song with perfectly mimicked calls of other birds, interwoven in it. Flight swift and direct without pause in wing beats. **Nesting**: *Season* — May to August. *Nest* — typical of all blackbirds, a deep cup of moss, rootlets, etc., copiously intermixed with wet mud, lined with fern stems and root hairs; in trees usually under 4 m up. *Eggs* — 3 to 5, pale greenish white blotched with ruddy-brown, densely at broad end.

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* These refer chiefly to the Blackcapped Blackbird (*T. m. nigropileus*)

493. **Grey Tit** *Parus major* Linnaeus

ACN: Great Tit

Plate 61

Syn. No. 1794

Local names: *Ramgangra* (Hindi); *Ramachakli* (Gujarati); *Puttani kuruvi* (Tamil).

Size: Sparrow. **Field Characters**: Glossy uncrested black head, glistening white cheek-patches, grey back and whitish underparts with a broad black band down the centre. Sexes alike. **Distribution**: Practically throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains, and hills to about 2000 m. Seven races, on size and coloration details. **Habits**: Frequents well-wooded localities, but not dense humid forest. Singly, pairs or parties, often hunting in association with other small insectivorous birds. Very active. Clings to sprigs, flowering stems and tree-trunks, etc., upside down and in other acrobatic positions in search of food — insects, their eggs and larvae, flower buds, fruit, kernels of small nuts and seeds. The latter are held down underfoot and hacked open with the strong conical bill. Joyous sweeching notes uttered while moving about. In the breeding season the male has a loud, clear, whistling song: *whee-chichi, whee-chichi, whee-chichi*, etc. **Nesting**: *Season* — varies with locality; February to November. Often two successive broods raised. *Nest* — a pad of hair, moss, feathers, etc., in a hole in a tree, wall or earth-cutting, 1 to 5 m up. *Eggs* — 4 to 6, white or pinkish white, spotted and speckled with reddish brown. Both sexes share parental duties.

494. **Whitewinged Black Tit** *Parus nuchalis* Jerdon

Plate 61

Syn. No. 1798

Local names: *Kabari ramachakli* (Gujarat); *Nalla patsa jitta* (Telugu).

Size: Sparrow+. **Field Characters**: A distinctive black and white tit glossy blue black above with white patch on nape, white wing pattern and white outer tail feathers. A broad black band from chin to vent. Cheeks, sides of neck and flanks white often suffused with yellow. Sexes alike. **Distribution**: Resident. Range restricted and disjunct Kutch, Northern Gujarat, Central Rajasthan in Western India. Eastern Ghats west of Nellore, Satyamangala, Bangalore in the south. **Habits**: In pairs or family parties in stony, semi-desert covered with babool and similar species. **Food**: Insects. **Call**: Contact notes a clear musical whistling *tee whi whee*. Other calls similar to Grey Tit's and a song *whew whew whew* uttered rapidly on an ascending scale. **Nesting**: *Season* — May to August. *Nest* — a rough pad of fibres, wool, etc., in trees. *Eggs* — Not known. Both parents care for the young.

495. **Yellowcheeked Tit** *Parus xanthogenys* Vigors

Plate 61

Syn. No. 1810

Size: Grey Tit (= Sparrow). **Field Characters**: A black and yellow tit with prominent pointed black crest, and black band down centre of yellow underparts. Sexes alike in north Indian race; in the peninsular and south Indian races ventral band of female olive-green. Female of latter race moreover dimorphic, sometimes with black sometimes with olive-green crown. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan. Three

races recognized on size and coloration details. Absent in Sri Lanka. An allied species, *P. spilonotus*, with bright yellow forehead, in Myanmar. **Habits**: Similar to those of the Grey Tit. Affects hill forests and wooded plateau country. Usually keeps in family parties, hunting insects in company with other small insectivorous birds in the foliage canopy. Active and restless. Utters a lively *chee-chee* while in quest of food. During the breeding season the male has a loud, clear, whistling song: *cheewit-pretty-cheewit,* etc., delivered with crest erect and wings drooping at sides. **Nesting**: *Season* — varies somewhat with local conditions, between April and September. *Nest* — like the Grey Tit's, a pad of moss, hair, wool or feathers inside a hole in a tree-stem, or crack in a wall or earth-bank. *Eggs* — 4 to 6, white or pinkish white lightly spotted and blotched with reddish or purplish brown. Both sexes share parental duties.

496. **Chestnutbellied Nuthatch** *Sitta castanea* Lesson

Plate 61

Syn. No. 1830

Local names: *Siri, Katphoriya* (Hindi).

Size: Sparrow-. **Field Characters**: A short-tailed bird with relatively long heavy pointed bill. Slaty blue above, deep chestnut below. Underparts of female paler. Singly, or pairs, creeping along trunks and branches of trees like a mouse. **Distribution**: The Indian Union; Pakistan; Bangladesh; Myanmar. Not Sri Lanka. Five races, distinguished on size of wing and bill and coloration of underparts. **Habits**: Affects forest and well-wooded tracts; also groves of old mango and other trees on the outskirts of villages. Usually in association with hunting parties of mixed insectivorous birds. Scuttles jerkily up and down or sideways and around trunks and branches of trees, clinging to the undersurface of a bough and running along it back downwards with surprising agility. Actions and behaviour a combination of woodpecker, tit, and mouse. **Food**: Spiders, grubs and insects lurking in holes and crevices in the bark; occasionally also kernels of seeds and nuts. **Call**: A feeble mousy *chilp-chilp*. **Nesting**: *Season* — overall, between February and May. *Nest* — a tree-hollow lined with leaves, moss, wool, etc., and walled up with mud plaster, leaving a small neat and round entrance hole. *Eggs* — 2 to 6, white, speckled with red. Both sexes share parental duties.

497. **Velvetfronted Nuthatch** *Sitta frontalis* Swainson

Plate 61

Syn. No. 1838

Local names: *Kmakhmali zad-chad* (Gujarati); *Dao-mojo-buku-gajao* (Cachari); *Pasai edukira kuruvi* (Tamil); *Tandan kili* (Malayalam); *Panu-kurulla* (Sinhala).

Size: Sparrow-. **Field Characters**: Like the Chestnutbellied Nuthatch, but purplish blue above, greyish lilac below. Forehead velvety jet black. Chin and throat whitish. Female differs from male in lacking the black stripe above and behind eye. Pairs or family parties in forest, creeping up and around branches of trees. **Distribution**: Sri Lanka and the better wooded portions of the Indian Union and Bangladesh; plains as well as hills up to about 2500 m elevation. The birds occupying the lower Eastern Himalayas, Assam, Myanmar and Malaysia are slightly smaller. **Habits**: Though the two are frequently found in the same localities, this species prefers moister and better wooded tracts than the Chestnutbellied Nuthatch. No appreciable difference in habits. Most commonly met with amongst the mixed

hunting parties of small birds that rove the forest, of which the usual members are tits, flycatchers, minivets and warblers. **Call**: A loud, cheeping whistle, rather of the volume of a sunbird's. Also a variety of mousy cheeps. **Nesting**: *Season* — about February to April in South India; April to June in the north. *Nest* — as in the foregoing species. Old woodpecker and barbet holes commonly utilized, the original entrance partially blocked up with mud plaster. *Eggs* — 3 to 6, white, densely speckled and blotched with red or purplish. Both sexes partake in parental duties. Incubation period 13/14 days.

498. **Spotted Grey Creeper** *Salpornis spilonotus* (Franklin)

Plate 61

Syn. No. 1841

Size: Sparrow-. **Field Characters**: A mottled brown bird entirely dark brown above spotted with white, white supercilium and dark ear-coverts. Tail barred brown and white. Throat white otherwise fulvous spotted and barred brown below. Beak long and curved. Sexes alike **Distribution**: Central Indian Peninsula from Gurgaon (Haryana) east to Manbhum south to Godavari river west to Surat Dangs. Patchily distributed but not uncommon locally. **Habits**: Singly or in pair or in mixed hunting parties in open deciduous forest, mango groves, etc., in the plains and hills. Prefers trees with fissured bark; forages like a nuthatch. **Food**: Insects and spiders. **Call**: A feeble whistling song of the volume and timbre of a sunbird. **Nesting**: *Season* — March to May. *Nest* — a deep cup of leaf stalks, leaf bits, lichen, etc., in the crotch of a thin leafless slender branch of *Acacia* or similar tree. *Eggs* — 2 or 3, pale greenish grey with brown specks and blotches. Both sexes incubate.

499. **Paddyfield Pipit** *Anthus novaeseelandiae* Gmelin

NN: *Anthus rufulus* Vieillot

Plate 61

Syn. No. 1857

Local names: *Rugail, Charchari* (Hindi); *Suriam, Serwi, Chanchir* (Chota Nagpur); *Gurapa-modi-pitta* (Telugu); *Pulla purake, Nettai-kali* (Tamil); *Chatuppan, Varamban* (Malayalam); Gomaritta (Sinhala).

Size: Sparrow+. **Field Characters**: Rather like female House Sparrow in coloration, dark brown above marked with fulvous; pale fulvous below, streaked with brown on breast. Slimmer, with slenderer bill and longer tail in which outermost feathers white. Sexes alike. Pairs or loose parties, on fallow land, etc. Several other pipits visit our area in winter. They resemble one another closely in appearance and habits, and considerable practice is needed to differentiate them in the field. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three resident races, separated mainly on depth of coloration; a fourth and larger race, winter visitor. **Habits**: Mainly terrestrial. Affects open country, plains and hills up to about 2000 m. Ploughed and stubble fields, grazing land and grass-covered stony hillsides are favourite haunts. **Food**: Weevils and other small insects. Runs about briskly in spurts and wags tail up and down like a wagtail, but much more slowly. Has the same undulating flight accompanied by a distinctive *pipit, pipit* or *tseep, tseep*, etc. During the breeding season the male soars and flutters a few feet up in the air uttering a feeble cheeping 'song', and presently returns to earth. It is a tawdry unimpressive version of skylark's song-flight. **Nesting**: *Season* — February to October, principally March to June. *Nest* — a shallow cup of grass, rootlets and hair placed under shelter of a clod or in an old hoof-print. *Eggs* — 3 or 4, yellowish- or greyish white, blotched and spotted with brown, more densely at broad end. Both sexes share in nest building and tending the young.

500. **Brown Rock Pipit** *Anthus similis* Jerdon

ACN: Longbilled Pipit

Plate 61

Syn. No. 1867

Local names: Not recorded.

Size: Bulbul. **Field Characters**: A large, pale brown long tailed pipit, lightly streaked above. A distinct buff supercilium. Wings and tails darker. Tail with whitish outer edge. Throat white, otherwise pinkish buff below with faint brown streaks which may be absent. Sexes alike. **Distribution**: Two races breeds in the Western Himalayas and foothills and winter in the northern Peninsula. Two other resident races along the Western Ghats, SW. Karnataka, south to Kerala and W. Tamil Nadu. Pakistan; Bangladesh (winter); not Sri Lanka. **Habits**: Singly or in pairs. Feeds on the ground. When flushed among crops rises, hovers and drops back or settles on an exposed rock or scrub. **Food**: Insects and berries. **Call**: Call-note, a soft *plip plip*. **Nesting**: *Season* — April to August. *Nest* — a shallow cup of coarse grass lined with hair, etc. on the ground in the shelter of a grass tuft, bush or stone. *Eggs* — 3 or 4, pale grey-brown or green marked with dark brown.

501. **Indian Tree Pipit** *Anthus hodgsoni* Richmond

Plate 61

Syn. No. 1852

Local names: *Musarichi* (Hindi); *Dhan chidi* (Gujarati); *Muchassi* (Bengali); *Liku filla* (Telugu); *Pulkuruvi* (Tamil).

Size: Sparrow+. **Field characters**: Greenish brown streaked with darker brown above. Supercilium, double wingbar and outer rectrices whitish. Whitish to buff below streaked with dark brown on breast and flanks. Sexes alike. **Distribution**: Throughout the subcontinent. Breeds in the Himalayas (up to 4500 m) and winters in the continent down to the cape. Usually in the hills in the south. **Habits**: Affects open country. In the south in evergreen woodland. In the north in groves and wooded biotope. Seen singly or pairs. Runs about on the ground in search of food and flies up into trees when disturbed. Flight jerky and undulating. **Food**: Insects, grass and weed seeds. **Call**: Song lark-like and uttered on the wing. A single *tseep* call note. **Nesting**: *Season* — May to July. *Nest* — a cup of moss and grass placed on the ground under a tuft of grass or boulder. *Eggs* — 4, dark brown, spotted darker. Usually two broods are raised.

502. **Forest Wagtail** *Motacilla indica* Gmelin

NN: *Dendronathus indicus* (Gmelin)

Plate 62

Syn. No. 1874

Local names: *Khanjan* (Bengali - all wagtails); *Kodikal valati* (Tamil); *Uz-hallajitta* (Telugu); *Kattuvalkulukki* (Malayalam); *Gomarita* (Sinhala).

Size: Sparrow. **Field Characters**: Olive brown above with a pale supercilium and eye ring. Wings blackish brown with large yellow spots or patches forming two prominent bands. Tail dark brown white edged. White with yellow wash below. A blackish brown collar

across throat and a second interrupted one on breast diagnostic taken with the double wing bands. **Distribution**: Mostly winter visitor to NE. India, Andhra Pradesh and the Andamans. Disjunctly to the Western Ghats complex from Mahabaleshwar south through Kerala and Tamil Nadu. Also Bangladesh; Sri Lanka. First migrants arrive by end August (Quetta, Pakistan); autumn passage mostly September and October; spring passage end March to early May. Has straggled to Kutch, Gujarat, Simla and Suru Valley. An old breeding record from N. Cachar in Assam. **Habits**: Affects evergreen and deciduous forests. Haunts cardamom and coffee plantations. Usually seen singly, foraging on the ground but a good deal of its food is obtained in trees. **Food**: Insects, spiders and other invertebrates. **Call**: A characteristic *pink* or *pink pink*. **Nesting**: *Season* — May (Assam). *Nest* — a small neat cup of twigs, leaves, etc., matted together with moss and cobwebs placed on a horizontal branch. *Eggs* — 4, grey with purple blotches. Nest building and incubation by female, fed by male at nest.

503. **Yellow Wagtail** *Motacilla flava* Linnaeus

Plate 62

Syn. No. 1875

Local names: *Pilkya* (Hindi); *Matano pilakyo* (Gujarati); *Charattalayan valkuluki* (Malayalam); *Fanfouduni* (Maldivian).

Size: Sparrow±. **Field Characters**: A slim, lively, long-tailed bird chiefly yellowish- or olive-green above, yellow below, seen running about in marshy fields and pastureland, constantly wagging its tail up and down. The three commonest races wintering in India are the Blackheaded (*melanogrisea*), Blueheaded (*beema*) and the Greyheaded (*thunbergi*). They are easily identified in adult summer plumage, but difficult to tell apart in juvenile and winter dress. **Distribution**: Common winter visitor to the entire Indian Union, Bangladesh and Pakistan. Also Nepal, Sikkim, Bhutan, Sri Lanka, Andaman and Nicobar Island. **Habits**: Similar to the other wagtails. Runs about in short spurts with brisk mincing steps, picking up tiny insects, occasionally springing into the air to capture a fleeing midge. Flies in undulating curves — a few quick wing flaps followed by a pause — accompanied by the distinctive call-note *weesp*. Roosts in reedbeds and standing sugarcane crops in enormous swarms often commuting long distances — up to 30 km or more — at sunrise and sunset between the feeding ground and roost, milling around in dense 'clouds' above the roosting fields before dropping into them like a rain of falling leaves! Some indication of the vast abundance of these winter visitors over the country as a whole can only be obtained after witnessing this astounding spectacle.

504. **Yellowheaded Wagtail** *Motacilla citreola* Pallas

ACN: Yellowhooded Wagtail

Plate 62

Syn. No. 1883

Local names: *Pilkya, Pani-ka-pilkya* (Hindi); *On munda* (Chota Nagpur); *Tooni* (Assam).

Size: Sparrow±. **Field Characters**: In summer dress male's bright yellow head diagnostic. Female, and male in winter, have crown and back grey, underparts yellowish white. Differentiated at all times from other similar coloured wagtails by presence of broad yellow supercilium and more or less yellow forehead. Scattered parties, sometimes large swarms,

on marshland and grassy tank margins. **Distribution**: In winter all India south to about Kerala; Bangladesh; Pakistan; Myanmar. Not Sri Lanka. Three races, difficult to differentiate in winter plumage. **Habits**: More gregarious than Grey Wagtail and essentially a water wagtail, inseparable from marshland and grassy jheels. Numbers often seen on floating lotus leaves and vegetation on a tank, tripping along lightly in search of tiny insects, sometimes springing up into the air, and launching sprightly sallies in pursuit of escaping midges and other quarry. General habits typical of the family. **Nesting**: Hodgson's Yellowheaded Wagtail (*M.c. calcarata*), the blackbacked race, breeds in Kashmir between 1500 and 4000 m. *Season* — May/June. *Nest* — a cup of grass in the centre or at the foot of a tuft of coarse grass or small bush in a marsh, or on wet ground near an upland stream. *Eggs* — 3 to 5, variable but not unlike those of the Grey Wagtail. Both sexes share the domestic duties.

505. **Grey Wagtail** *Motacilla cinerea* Tunstall

Plate 62

Syn. No. 1884

Local names: *Khak dobbai* (Kashmir); *Balkatara* (Punjab); *Haldiya balimahi* (Assam); *Mudi-tippudu-jitta* (Telugu); *Valukulukki* (Malayalam).

Size: Sparrow±. **Field Characters**: A sprightly, slim long tailed bird chiefly grey and yellow running about singly on ground near rocky streams and trickles in wooded country and forest glades. Sexes alike in winter; chin, throat and upper breast of male black in summer. **Distribution**: In winter throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and hills. **Habits**: Runs about briskly in spurts chasing tiny insects, turning and twisting with agility in their pursuit and often springing up into the air to capture winged ones. The tail is incessantly and characteristically wagged up and down. Flight, a series of long undulating curves, produced by alternate quick flapping and closing of the wings. A sharp *chicheep, chicheep*, etc., is uttered on the wing. The male has a pretty little song in the breeding season. **Nesting**: Within our limits breeds only in the Himalayas between 2000 and 4,000 m elevation. *Season* — May to July. *Nest* — a cup of grass, rootlets and wool under a stone or among the roots of a bush or tree near a stream, preferably on a small islet. *Eggs* — 4 to 6, yellowish grey or greenish, freckled with reddish brown, more densely at the broad end. Both parents tend the young.

506. **White Wagtail** *Motacilla alba* Linnaeus

Plate 62

Syn. No. 1885

Local names: *Peenchkani, Dobbai* (Kashmir); *Balkatara* (Punjab); *Dhoban* (Hindi); *Khatriani* (= 'woman dyer', Gujarati); *Nachangol* (Bhil); *Khanjana* (Chota Nagpur), W. Bengal); *Balimati, Tiposi* (Assam); *Vella valkulukki* (Malayalam).

Size: Same as the Grey Wagtail (= Sparrow±). **Field Characters**: In non-breeding or winter plumage the black bib is much reduced or wanting, the chin and throat being white like the underparts. Sexes alike. Scattered parties or flocks running about and feeding on open grassland. **Distribution**: In winter the greater part of the Indian Union, Bangladesh and Pakistan. Occasional straggler to Sri Lanka (*dukhunensis*). The two races common over

most of this area are the Indian *dukhunensis*, and the Masked *personata*. Both very similar, but the former has white ear-coverts at all seasons as against black in *personata*. A third race, the NE. Siberian *ocularis*, with a black streak running backward through eye, visits NE. India and Myanmar. **Habits**: Winter visitor arriving about September/October; departing March/ April. Runs about swiftly, wagging tail incessantly up and down, to pick up tiny insects on ploughed fields, fallow land, golf links, maidans and lawns even in the midst of populous towns. Roosts at night in large mixed gatherings with other wagtails and swallows in reed-beds, sugarcane fields, and leafy trees. General habits and food typical of the family. **Nesting**: Within our limits only *personata* breeds in Kashmir and NW. Pakistan between 2000 and 4000 m. *Season* — May to July. *Nest* — a pad of rootlets, moss, hair, etc., placed in a hole in a ruined wall or amongst a pile of stones. *Eggs* — 4 to 6, white, freckled and spotted with reddish brown.

507. **Large Pied Wagtail** *Motacilla maderaspatensis* Gmelin

ACN: Whitebrowed Wagtail

Plate 62

Syn. No. 1891

Local names: *Mamula, Bhuin mamula, Khanjan* (Hindi); *Nachangol, Hata rowe* (Chota Nagpur); *Balimahi, Tipochi* (Assam, all wagtails); *Khongrangchak* (Manipur, all wagtails; regarded as an incarnation of Durga); *Sakala sarela-gadu* (Telugu); *Vannathi kuruvi, Kulatthu kuruvi* (Tamil); *Valukunukki pakshi* (Malayalam).

Size: Bulbul±. **Field Characters**: A large wagtail of black-and-white plumage, resembling in pattern that of the familiar Magpie-Robin, but with a prominent white eyebrow. In the female the black portions are duller and browner. Pairs, at streams, tanks, etc.
May be confused with the somewhat smaller Hodgson's Pied Wagtail (*M. a. alboides*), where both are found together in winter. But this has an entirely white forehead whereas in *maderaspatensis* the black of the crown extends in a point over the forehead to base of bill. **Distribution**: Resident throughout the Indian Union, excepting the NE. states, from about 700 m in the Himalayan foothills. Also in Kohat, Salt Range and Punjab, but not Sind in Pakistan; parts of Bangladesh adjacent to lower W. Bengal. Sri Lanka three additional sight records since the last specimen collected over a hundred years back. Not Myanmar. **Habits**: Affects clear, shingly or rocky smooth-running streams with diminutive grass-covered islets here and there. Also village tanks and irrigation reservoirs. Usually tame and confiding. Has a number of loud, pleasant whistling calls. During the breeding season, the male sings sweetly from a rock or house-top. Song somewhat reminiscent of Magpie-Robin's. Food and general habits like other wagtails'. **Nesting**: *Season* — elastic, chiefly March to September. *Nest* — a cup-shaped pad of rootlets, hair, wool, and dry algae, etc., under a projecting rock, among rafters of a dwelling house, or under girders of a bridge — always near water. *Eggs* — 3 or 4, greyish-, brownish-, or greenish white, blotched and streaked with various shades of brown. Both sexes share the domestic duties.

508. **Thickbilled Flowerpecker** *Dicaeum agile* (Tickell)

Plate 62

Syn. No. 1892

Local names: *Phul sunghani* (Gujarati); *Che* (Chota Nagpur); *Chittu-jitta* (Telugu); *Ittakkannikkuruvi* (Malayalam).

Size: Sparrow-; smaller than sunbird. **Field Characters**: Ashy olive-brown above; greyish buffy white below, faintly brown-streaked. Stout *bluish* finch-like bill readily distinguishes it from Tickell's Flowerpecker. Sexes alike. Singly, on mistletoe-laden trees in open wooded country. **Distribution**: Indian race *agile* found practically throughout India (barring the arid NW. portions) up to 1500 m in Himalayas; Pakistan; Bangladesh. Sri Lanka has an endemic race, *zeylonense*. **Habits**: Similar, in general to Tickell's Flowerpecker. Feeds largely on ripe berries of *Dendrophthoe* and *Viscum* plant parasites, but unlike Tickell's does not normally swallow them entire. The edible pulp is stripped off by manipulating berry in bill, the viscous seed being wiped on to a neighbouring branch. Thus it spreads the infestation among branches of the same tree rather than to distant ones. Also eats peepul figs, lantana berries, and other fruit. **Call**: A sharp metallic *chik-chik-chik* distinct from Tickell's. Spreads stumpy tail and screws it restlessly from side to side while perched. **Nesting**: *Season* — January to June. *Nest* — an oval felted pouch of vegetable down, similar to Tickell's, brown in colour, and well camouflaged. *Eggs* — 2 or 3, pinkish white, blotched and speckled with brick-red.

509. **Tickell's Flowerpecker** *Dicaeum erythrorhynchos* (Latham)

ACN: Palebilled Flowerpecker

Plate 62

Syn. No. 1899

Local names: *Phoolchuki* (Hindi); *Sungti-pro-pho* (Lepcha).

Size: Sparrow-; smaller than sunbird. **Field Characters**: A diminutive, restless, olive-brown bird with greyish white underparts — like a female sunbird in general effect — with short, slender, slightly curved, *flesh coloured* bill. Sexes alike. Singly, on *Dendrophthoe* clumps in mango orchards and thin deciduous forest. **Distribution**: The Indian Union, excepting the arid portions; Bangladesh; Sri Lanka, and perhaps Myanmar. Two races, the Indian (*erythrorhynchos*) being paler than Sri Lankan (*ceylonense*). **Habits**: Affects orchards, forest plantations and groves near villages. Its staple food is the berries of the noxious plant parasites *Dendrophthoe* and *Viscum* belonging to the mistletoe family. The ripe berries are swallowed entire and the sticky slimy seeds excreted on to another branch of the same host tree or of a neighbouring one where they adhere and sprout within a few days, spreading the infestation. Utters an almost incessant sharp *chick-chick-chick* while flying across from one mistletoe clump to another, and as it hops restlessly among the parasite clusters. Has a twittering song besides. **Nesting**: *Season* — chiefly February to June. *Nest* — a hanging oval pouch with lateral entrance hole, rather like a sunbird's nest but smaller and neater and minus the exterior drapery of rubbish. Of soft fibres and vegetable down with the texture of felt. Suspended on twig 3 to 15 m up. *Eggs* — 2, white. Both sexes share in building the nest and feeding the young.

510. **Plaincoloured Flowerpecker** *Dicaeum concolor* (Jerdon)

Plate 62

Syn. No. 1902

Local name: *Bongfang daotisha* (Cachari).

Size: Sparrow. **Field Characters**: Olive green above, greyish white below (Himalayan race). Similar to Tickell's Flowerpecker but distinguished by black bill (*v.* pink in Tickell's). White shoulder patch on closed wing and yellowish white underparts (Western Ghats). Sexes alike. **Distribution**: Himalayan foothills from Central Nepal to eastern India. South-western India from Mahabaleshwar southwards to Kerala and Tamil Nadu. Andamans (the Andaman race has a bright yellow belly). **Habits**: Affects deciduous, mixed deciduous and evergreen forests and clearings and gardens. Always in association with tree parasites (family Loranthaceae). **Food**: Berries, nectar, insects. **Call**: Indistinguishable from Tickell's Flowerpecker. **Nesting**: *Season* — January to August. *Nest* — a small hanging purse made of floss of silk cotton tree placed on trees or tall bushes. *Eggs* — 2 or 3, white. Both sexes share parental duties.

511. **Scarletbacked Flowerpecker**
Dicaeum cruentatum (Linnaeus)

Plate 62

Syn. No. 1904

Size: Sparrow-. **Field Characters**: Male has the crown, back and rump crimson, sides of heads, throat and breast black, wings and tail glossy blue-black. Below centre of throat, breast and belly with a buff band. Flanks grey. Female olive. Generally with crimson upper tail-coverts, black tail, dark brown wings and buff with grey sides below. **Distribution**: Resident. From N. Nepal, Bhutan and Arunachal Pradesh foothills south in the plains and hills of NE. India, Bangladesh and W. Bengal; Myanmar. **Habits**: Affects open forest orchards and tree groves. Keeps to the canopy. **Food**: Insects, spiders, berries and nectar. **Call**: A loud *tchik-tchik* somewhat like the tailor bird's and a constant twittering while feeding. **Nesting**: *Season* — April to August. *Nest* — an oval purse of vegetable down held together by grass, rootlets and cobwebs. Entrance with a perch, suspended at the end of a branch, well hidden by leaves. *Eggs* — 2 or 3, white. Both sexes build the nest and share parental duties.

512. **Firebreasted Flowerpecker** *Dicaeum ignipectus* (Blyth)

Plate 62

Syn. No. 1905

Local name: Phoolchuki (Hindi).

Size: Same as Tickell's Flowerpecker. **Field Characters**: Glistening greenish black above, creamy buff below with a scarlet patch on breast. Female olive grass-green above with a contrasting yellow rump; buff below. Wings and tail black. Singly, or twos and threes, on clumps of mistletoe (*Dendrophthoe*) parasitizing trees in wooded Himalayan country. **Distribution**: Himalayas between 2000 and 4000 m from the Sutlej Valley to Arunachal Pradesh and south in the hills of Meghalaya, Mizoram and Manipur; Myanmar. **Habits**: Entirely arboreal and not different from those of Tickell's Flowerpecker except that it ascends to higher elevations than perhaps any other flowerpecker. Its restricted distribution would

not entitle it to a place in this book, were it not so common where it occurs. It is met with at most Himalayan hill-stations. Inseparable from the loranthus tree parasite, living largely on its berries. It disseminates the sticky seeds from tree to tree and is responsible for the spread of this harmful plant. Also eats nectar, small spiders and insects. Call notes practically indistinguishable from those of Tickell's Flowerpecker. **Nesting**: *Season* — March to June. *Nest* — similar to that of Tickell's Flowerpecker. *Eggs* — 2 or 3, white.

513. **Purplerumped Sunbird** *Nectarinia zeylonica* (Linnaeus)

Plate 63

Syn. No. 1907

Local name: *Shakarkhora* (Hindi).

Size: Purple Sunbird. **Field Characters**: Upperparts and breast glistening metallic crimson, green, and purple; lower parts yellow. Rump metallic bluish purple. Breeding and non-breeding plumages alike. Female very similar to that of Purple Sunbird, but with chin greyish white and rest of lower parts brighter yellow. Pairs in wooded country. **Distribution**: Sri Lanka and peninsular India north to Bombay, east to Calcutta. In Andhra Pradesh not recorded north of Godavari Valley. Bangladesh. **Habits**: Similar to the Purple Sunbird's. In quest of nectar it is responsible for cross-pollinating numerous species of flowers, one of great economic harmfulness being the pernicious tree-parasite *Dendrophthoe*. The male sings excitedly while pivoting on his perch from side to side and opening and closing his wings and tail: *tityou, tityou, tityou, trr-r-rtit* and so on. **Nesting**: *Season* — not well defined. *Nest* — an oblong pouch of soft grasses, rubbish and cobwebs, draped with pieces of bark, woody refuse and caterpillars' droppings, with a projecting portico above the lateral entrance hole. Suspended from the tip of a branch of bush or creeper at moderate heights, often adjacent to an occupied bungalow. *Eggs* — 2, also similar to those of Purple Sunbird. Female alone builds and incubates; male helps to feed the young.

514. **Small Sunbird** *Nectarinia minima* (Sykes)

Plate 63

Syn. No. 1909

Local names: *Chhota shakar khora* (Hindi); *Cheru tenkili* Malayalam).

Size: Sparrow-. **Field Characters**: *Male*: Similar to Purple Sunbird but back deep crimson brown or maroon and without metallic shoulder patch. Below collar broader covering breast. Belly yellow with bright lemon tufts. Flanks greyish white. *Female*: Above olive, lower rump distinctively deep crimson-brown. **Distribution**: Resident. Western Ghats from North Thana southwards to Kanyakumari Dist. Affects evergreen biotope between *c*. 300 and 2100 m. **Habits**: Typical of sunbirds. Hunts actively among flowers for insects and nectar. **Food**: Nectar, insects and spiders. **Call**: A squeaky *see-see-whi-see-see-siwee* repeated frequently after a short pause. Call-note a single metallic *chik* repeated while foraging. **Nesting**: *Season* — December to April. *Nest* — the usual hanging pouch of sunbirds but smaller and neater made largely of bast fibres and moss suspended from the tip of a twig commonly on strobilanth bushes. *Eggs* — 2, white with a ring of reddish spots. Male in eclipse (non-breeding) plumage distinguished from female by the metallic purple rump.

515. **Maroonbreasted** or **Loten's Sunbird**

Nectarinia lotenia Linnaeus)

ACN: Longbilled Sunbird

Plate 63

Syn. No. 1911

Local names: *Tenkili, Valia tenkili* (Malayalam); *Pun chittu, Then chittu* (Tamil, Madurai).

Size: Sparrow-. **Field Characters**: *Male*: Black above with metallic green and purple sheen. *Below* throat metallic green, metallic purple on breast with a dark crimson or maroon band across breast and bright yellow tufts on sides of breast which are conspicuous even from the rear when erected while displaying. The long, slender, deeply arched bill distinctive. *Female*: Dull olive. Tail blue-black with white tips, dull yellow below. **Distribution**: Fairly common resident in the Peninsula south of a line from Nashik in Maharashtra to W. Bengal; also Sri Lanka; Bangladesh. Affects moist deciduous biotope in well-wooded but fairly open country with plenty of flowering shrubs and trees. **Habits**: Keeps singly or in pairs flitting from flower to flower in search of nectar. Parasitic loranthus is particularly favoured. **Food**: Nectar, also spiders and insects. **Call**: Call-note, a sharp metallic *chit*. Song *cheewit cheewit cheewit* quickly repeated. **Nesting**: *Season* — March to May but nests may be found in every month. *Nest* — an oval pouch made of fine fibres, etc., and provided with a protective porch. Nest distinguished from that of other sunbirds' by the absence of cobwebs in the exterior. *Eggs* — 2, brownish white with dull brown spots. Nest building by female. Both parents feed nestlings but when out of nest fed mostly by male. Male in eclipse plumage like female but with a broad black median band.

516. **Purple Sunbird** *Nectarinia asiatica* (Latham)

Plate 63

Syn. No. 1917

Local names: *Kala pidda* (Punjab); *Shakar khora, Phul soongni* (Urdu, Hindi); *Phul chakli* (Gujarati); *Jugi-jugi* (Bhagalpur); *Sue* (Chota Nagpur); *Chumka* (Marathi); *Karupan tenkili* (Malayalam); *Thena-pitta* (Telugu); *Then-kudi, Pu-kudichan* (Tamil); *Sutikka, Gewal kurulla* (Sinhala).

Size: Sparrow-; (= White-eye). **Field Characters**: Breeding male metallic dark blue and purple, pectoral tufts bright yellow and scarlet. At a distance the bird looks all black. Male in non-breeding plumage like female — brown to olive-brown above, pale dull yellow below — but with darker wings and a broad black stripe running down middle of breast. Pairs in open lightly-wooded country. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three races, based on details of size and coloration. **Habits**: Affects gardens, groves, cultivated and scrub country as well as light deciduous forest. **Food**: Insects and spiders, and very largely flower nectar. Its slender curved bill and tubular tongue are admirably adapted for probing into flower tubes and sucking the nectar; in doing so the bird helps to cross-pollinate the blossoms. **Call**: A sharp monosyllabic *wich, wich* uttered as it flits about. The breeding male sings excitedly from exposed perches, *cheewit-cheewit-cheewit*, etc., raises and lowers his wings displaying the brilliant yellow and scarlet tufts of feathers under the 'armpits'. **Nesting**: *Season* — elastic, mostly March to May. *Nest* — typical of sunbirds, an oblong pendulous pouch of soft grasses, etc., as described under Purplerumped Sunbird. *Eggs* — 2 or 3, greyish- or greenish white marked with various shades of brown and grey. Only the female builds and incubates, but male assists in feeding the young.

517. **Yellowbacked Sunbird** *Aethopyga siparaja* (Raffles)

ACN: Crimson Sunbird

Plate 63

Syn. No. 1927

Local name: *Phulchuiya* (Dehra Dun).

Size: Sparrow-. **Field Characters**: A brilliantly coloured glistening purple, green and crimson sunbird with long, pointed, metallic green tail and a distinctive yellow rump. Female short-tailed as in the Purple species, but dusky olive-green above, dull ashy green below. Pairs in well-wooded country. **Distribution**: Patchy, over the greater part of the Indian Union, in moist-deciduous and evergreen forest biotopes, up to between 1500 and 2500 m elevation in the Himalayas and peninsular hills. Also Bangladesh and Myanmar. Not Sri Lanka or Pakistan. Several races, of which two chiefly concern us: the Himalayan *seheriae* of continental India, and *vigorsii* of the Western Ghats country. In the latter the scarlet-crimson breast is boldly streaked with yellow. The race *nicobarica* is resident in the Great and Little Nicobars. **Habits**: Flits about restlessly like a gem in the sunshine among blossoming shrubs and trees, hanging upside down and in other acrobatic positions to probe into the flower tubes for nectar. Also eats insects and spiders. **Call**: A sharp, harsh *chichwee,* reminiscent of the Blacknaped Blue Flycatcher. **Nesting**: *Season* — overall April to October. *Nest* — a felted, pear-shaped pouch typical of the sunbirds, suspended from a low bush on a ravine bank, etc., in forest. *Eggs* — 2 or 3, creamy whitish, minutely flecked with brown.

518. **Little Spiderhunter** *Arachnothera longirostris* (Latham)

Plate 63

Syn. No. 1931

Local name: *Tenkilamatan* (Malayalam).

Size: Sparrow-. **Field Characters**: An olive and yellow bird like a large female sunbird with very long and stout, curved bill. Tail dark brown tipped with white. Throat and breast greyish white. Belly yellow with orange tufts on flanks. Sexes alike. **Distribution**: Resident. Western Ghats from North Kanara to Kanyakumari Dist., Eastern Ghats, NE. states and Bangladesh, Eastern Himalayas, west to SE. Nepal. Affects foothills up to 1500 m. Affects moist-deciduous and evergreen forests, glades and secondary growth, banana plantations, etc. **Habits**: Similar to sunbirds. Seen singly or in pairs. Partial to banana blossoms. **Food**: Nectar, insects, spiders. **Call**: Call-note, a harsh *cheep* or *chee chee* similar to Paradise Flycatcher but high pitched. Song a monotonous *which which which.* **Nesting**: *Season* — March to September. *Nest* — a deep compact cup of skeleton leaves, soft grass, vegetable down neatly felted together and attached by its rim like an inverted dome to the underside of a broad leaf like that of a banana. *Eggs* — usually 2, pinkish white stippled with reddish. Both sexes share parental duties.

519. **Streaked Spiderhunter** *Arachnothera magna* (Hodgson)

Plate 63

Syn. No. 1932

Size: Sparrow. **Field Characters**: A boldly streaked yellowish olive bird with a distinctive long, curved, black bill and yellow legs. Tail with sub-terminal band and tipped with buff spots. Pale yellow streaked with black below. **Distribution**: Resident. Eastern Himalayas

and states of Eastern India. Bangladesh. Subject to vertical movement in the hills. **Habits**: Affects dense evergreen forests and abandoned cultivation especially holding wild banana and plantain. Singly or in pairs. Flight strong and undulating. **Food**: Nectar, insects and spiders. **Call**: A distinctive sharp *chirirk, chiriririk* uttered in flight and while feeding. Song a soft, monotonous, *vijvitte vij*. **Nesting**: *Season* — March to July. *Nest* — an inverted dome of skeleton leaves tied together with cobwebs fixed usually on the underside of a large leaf. *Eggs* — 2 or 3, brown darker at the large end. Building and incubation by both sexes.

520. **White-eye** *Zosterops palpebrosa* (Temminck)

NN: *Zosterops palpebrosus* (Temminck)

Plate 63

Syn. No. 1933

Local names: *Baboona* (Hindi); *Motichur* (Saugor, M.P.); *Daotisha-gophu-pi* (Cachari); *Vellai Kanni* (Tamil, Madras); *Kannadi kurivi* (Tamil, Madurai); *Pukuruvi* (Tamil, Sri Lanka); *Mal kurulla* (Sinhala).

Size: Sparrow-. **Field characters**: A tiny, square-tailed greenish yellow and bright yellow bird with a conspicuous white ring round eye and slender, pointed, slightly curved bill. Gregarious; in trees in gardens and wooded country. **Distribution**: Practically throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka and Myanmar, excepting actual desert. Resident and locally migratory. Four geographical races in the above, based on details of size and coloration. **Habits**: Arboreal. Flocks of 5 to 20 or more hunt energetically among the foliage of trees and bushes for insects, often clinging upside down and peering into likely nooks and crannies in the manner of tits. They also subsist largely on flower nectar and on the fleshy pulp of fruits and berries. **Call**: Feeble jingling conversational notes keep the members of a flock together. In the breeding season the male delivers a pleasing, tinkling song reminiscent of the Verditer Flycatcher's. It commences almost inaudibly, grows louder and presently fades out as it began. **Nesting**: *Season* — principally April to July. *Nest* — a tiny cup of fibres neatly bound with cobwebs — a miniature Oriole's nest — slung hammockwise in the end fork of a thin twig, normally between 2 to 4 m up. *Eggs* — 2 or 3, pale blue, sometimes with a cap of deeper blue at the broad end. Both sexes share the domestic duties.

521. **House Sparrow** *Passer domesticus* (Linnaeus)

Plate 63

Syn. No. 1938

Local names: *Ginjishki* (Baluchi); *Goura* (Nepali); *Gauriya* (Hindi, Urdu); *Churi, Khas churi* (Hindi); *Ghakli* (Gujarati); *Charkalpe* - Male (Bhil); *Garhwa* (Chota Nagpur); *Choti charai* (Bengal); *Ghor charika, Ghar suroee* (Assam); *Sendang* (Manipur); *Kuruvi, Narayanappakshi, Angadi kuruvi* (Malayalam); *Ur kuruvi, Adaikalang kuruvi* (Tamil); *Ge kurulla* (Sinhala).

Size: Bulbul-; 15 cm (6 in.). **Field Characters**: Undoubtedly our most familiar bird. *Male* with grey crown, black lores and around eye. Behind eye, sides of neck and upper back chestnut. Back rufous-chestnut, black streaked. White shoulder patch on rufous wing. Tail dark brown. *Female* ashy grey-brown above, streaked with blackish and rufous, and with a

pale fulvous supercilium; fulvous ashy white below. Inseparable from human habitations. **Distribution**: Practically world-wide. Throughout India normally to about 2000 m in the Himalayas. Bangladesh; Pakistan; Sri Lanka; Myanmar. Apparently absent in the Andamans and Nicobars. Two races; the Kashmiri and northwestern being larger. **Habits**: A confirmed hanger-on of man, in hills and plains alike, whether in a bustling noisy city or outlying forest hamlet. Omnivorous; eats grain, insects, fruit buds, flower nectar and kitchen scraps. Sometimes collects in enormous flocks and does damage to ripening crops and in market gardens. Non-breeding birds have favourite community roosts in leafy trees, where large numbers foregather with much noise every evening. Chirping call notes too well known. 'Song' of breeding male a loud, monotonous, *tsi, tsi, tsi,* or *cheer, cheer, cheer* uttered *ad lib* as he fluffs out his feathers, arches his rump, droops his wings and struts about arrogantly, twitching his partly cocked tail. **Nesting**: *Season* — practically all year, the most favoured months varying with locality. *Nest* — a collection of straw, rubbish and feathers in a hole in ceiling, niche in wall, inverted lamp shade, and every conceivable site within or without an occupied building. *Eggs* — 3 to 5, pale greenish white, stippled and blotched with brown. Several successive broods are often raised.

522. **Yellowthroated Sparrow** *Petronia xanthocollis* (Burton)

ACN: Chestnut-shouldered Petronia

Plate 63

Syn. No. 1949

Local names: *Raji, Jangli chiria* (Hindi); *Ban-chiria* (Bengali); *Mahoraoi, Daidem* (Chota Nagpur); *Adavi-pichike, Konde-pichike, Cheuka-pichike* (Telugu); *Manjatali* (Malayalam).

Size: Sparrow. **Field Characters**: A pale earth-brown sparrow with a conspicuous chestnut shoulder-patch, two whitish bars in the wing, and a lemon-yellow 'thumb impression' on the throat. Female lacks the yellow on throat, and her chestnut shoulder-patches are paler. Pairs or flocks, in open thinly-wooded country. **Distribution**: Practically all India from about 1500 m in the Himalayas to Kanyakumari and from Sind to W. Bengal. Also Bangladesh, Pakistan, Sri Lanka and parts of Myanmar. Resident and marked seasonal local migrant. Two races; a paler and a darker. **Habits**: Often found in the neighbourhood of towns and villages, but not so closely associated with man as the House Sparrow. Keeps to open scrub country and light deciduous forest. Gleans paddy grains and grass seeds in stubble fields and on cross-country cart tracks. Also feeds on berries, flower nectar, and moths and other insects. Chirpy call notes similar to the House Sparrow's but pleasanter. Forms into large flocks in winter. **Nesting**: *Season* — April to June. *Nest* — a collection of grass, wool, feathers and rubbish stuffed inside a tree-hole between 3 and 15 m from the ground. Old woodpecker and barbet nest-holes are commonly appropriated. *Eggs* — 3 or 4, pale greenish white, spotted, blotched and streaked with dingy brown. Both sexes share domestic duties.

523. **Baya Weaver Bird** *Ploceus philippinus* (Linnaeus)

Plate 64

Syn. No. 1957

Local names: *Baya, Son-chiri* (Hindi); *Bijra* (Hoshiarpur); *Sughari* (Gujarati); *Suyam* (Chota Nagpur); *Babui* (Bengali); *Parsupu pita* (Telugu); *Thonga-nathan* (Tamil); *Thukanan-kuruvi* (Tamil in Sri Lanka); *Wadu-kurulla, Tatteh kurulla, Goiyan-kurulla* (Sinhala).

Size: Sparrow. **Field Characters**: Female, and male in non-breeding plumage, rather like the hen House Sparrow: dark-streaked fulvous brown above, plain whitish fulvous below. Stout conical bill; short square-cut tail. Breeding male has bright yellow crown and upper parts dark brown streaked with yellow. Yellow breast, cream buff on underparts. Flocks, about open cultivation. **Distribution**: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and locally migratory. Three races, on size and details of coloration. **Habits**: Flocks, sometimes of considerable size, glean paddy and other grain in harvested fields. Occasionally damages ripening crops. Roosts in enormous numbers in reed-beds bordering tanks, etc. Its seasonal local movements are largely governed by paddy and cereal cultivation which provide both nesting material and food. Also eats insects. **Call**: A sparrow-like *chit-chit-chit*. In breeding season males follow these up by a long-drawn joyous *chee-ee* uttered in chorus, accompanied by flapping of wings in unison while weaving their nests in a colony. **Nesting**: *Season* — May to September, coincident with the SW. monsoon and paddy cultivation. *Nest* — a swinging retort-shaped structure with long vertical entrance tube, compactly woven out of strips of paddy leaf and rough-edged grasses, suspended in clusters from twigs usually over water. Blobs of mud, collected when wet, are stuck inside the dome near the egg-chamber. *Eggs* — 2 or 4, pure white. Male alone builds; female alone incubates. Each male has several nests and females at the same time.

524. **Finn's Baya** *Ploceus megarhynchus* Hume

ACN: Yellow Weaver

Plate 64

Syn. No. 1960

Size: Sparrow. **Field Characters**: *Male* adult in breeding plumage with head and nape bright yellow contrasting brown ear-coverts. Back dark brown streaked. Rump yellow. Below bright golden yellow. *Female* head and nape pale canary or brown heavily suffused with yellow, otherwise brown with darker streaks. Below pale canary yellow or fulvous white. First year breeding males similarly coloured. In non-breeding plumage sexes alike and difficult to separate from Common Baya. **Distribution**: Resident in the Kumaon terai and duars of W. Bengal. Very localised. Affects marshes with extensive stands of *Imperata* and *Saccharum* grasses sparsely dotted with silk cotton trees. **Habits**: Gregarious at all times moving in flocks about the grasslands. **Food**: Rice and other grains. Nestlings fed on insects. **Call**: Louder and harsher than that of the Baya. A high-pitched alarm note. Male song rendered as *twit-twit-t-t-trr wheeze whee whee*. Birds sing in chorus. **Nesting**: *Season* — May to August. *Nest* — built in colonies on tree tops 9 to 10 m from the ground or in marshy reed beds. Unlike other weavers nest is supported, not suspended and made of coarse grass. Males have an elaborate wing beating display. *Eggs* — 2 or 3, white. Male polygynous. Both sexes feed the young.

525. **Blackthroated Weaver Bird** *Ploceus benghalensis* (Linnaeus)

ACN: Blackbreasted Weaver

Plate 64

Syn. No. 1961

Local names: *Sarbo baya* (Hindi); *Shor baya, Kantawala baya* (Bengali).

Size: Sparrow. **Field Characters**: Male in breeding plumage has brilliant golden-yellow crown, white throat and a black band separating it from the fulvous-white underparts. In non-breeding male and female, crown brown like rest of upper plumage; black pectoral band less developed. A prominent supercilium, a spot behind ear, and narrow moustachial streaks, pale yellow. Flocks about cultivation and around reedy margins of tanks and jheels, or extensive tall grass areas. **Distribution**: Northern India east to NE. states (common in the HImalayan terai); south to Kutch, Gujarat and Maharashtra. Bangladesh; Pakistan. Patchy and local. **Habits**: Polygynous; colonial; on the whole similar to those of the Baya and Streaked weavers. In courtship bows low before visiting female, presenting golden crown at her. Flaps wings deliberately and sings softly *tsi-tsisik-tsisik-tsik-tsik* like chirp of cricket or subdued squeaking of unoiled bicycle wheel. **Nesting**: *Season* — June to September. *Nest* — similar to the Streaked Baya's; somewhat smaller and normally with shorter entrance tubes. Built in reed-beds in marsh with some of the growing reeds incorporated into the dome as support. Singly or in scattered groups of 4 or 5; sometimes larger colonies. *Eggs* — 3 or 4, white, indistinguishable from those of the other two weavers.

526. **Streaked Weaver Bird** *Ploceus manyar* (Horsfield)

Plate 64

Syn. No. 1962

Local names: *Teliya Baya* (U.P.); *Tite babui* (Bengali); *Bamani baya* (Hindi in Deccan), *Attakuruvi, Kayatatta* (Malayalam); *Thukanan kuruvi, Manja kuruvi* (Tamil in Sri Lanka); *Wadu kurulla* (Sinhala).

Size: Sparrow. **Field Characters**: Differs from the Baya in having the breast fulvous, boldly streaked with black in both sexes and at all seasons. Crown of head in breeding males yellow; in females and non-breeding males brown. Flocks, in swampy tall reed-beds. **Distribution**: Patchily more or less throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races, on details of coloration. **Habits**: Similar to the Baya's except that it is more partial to tall coarse grassland and swampy reedy tank margins. In addition to the normal *chit-chit-chit*, the breeding male has a pretty song: *tililili, tililee-kiti-tilileekiti*, etc., uttered in courtship chase and in invitation to a female to an available nest. **Nesting**: *Season* — February to September, varying with local conditions. *Nest* — similar to the Baya's but not so free swinging. Usually also smaller and with shorter entrance tube. Attached directly to tips of several arching bulrush (*Typha*) or grass blades. Small colonies in marshy reed-beds. *Eggs* — 2 to 4, pure white.

527. **Red Munia** or **Avadavat** *Estrilda amandava* (Linnaeus)

NN: *Amandava amandava* (Linnaeus)

Plate 64

Syn. No. 1964

Local names: *Lal, Lal munia* (Hindi); *Lili munia* (Gujarati).

Size: Sparrow-. Same as of the other munias. **Field Characters**: Male in non-breeding plumage, and female, brownish sparsely stippled with white, with red bill and crimson rump. Tail rounded at tip. Flocks among reeds and herbage, on wet grassland. **Distribution**: Throughout the Indian Union from about 800 m in the HImalayas almost to Kanyakumari. Up to 2000 m elevation in the peninsular hills. Also Bangladesh, Pakistan, and Myanmar. Not Sri Lanka. The Burmese race differs from the Indian in details of coloration. **Habits**: Typical munia, with a preference for damp localities. Has feeble but musical chirruping call notes. Breeding males utter a low, continuous, twittering song. A popular cage bird, always to be seen in bird markets. **Nesting**: *Season* — chiefly the monsoon, June to October. *Nest* — a small globular structure of grass, lined with finer grasses and feathers, usually within a metre of the ground, in a coarse grass tussock or bracken bush. *Eggs* — 4 to 7, pure white. Both sexes share domestic duties.

528. **Green Munia** *Estrilda formosa* (Latham)

NN: *Amandava formosa* (Latham)

Plate 64

Syn. No. 1965

Local names: *Hari munia, Hari lal* (Hindi); *Lili munia* (Gujarati).

Size: Sparrow-. **Field Characters**: Very like the Red Munia but light olive-green above, yellow below, the flanks barred with greenish brown and white. Tail black, rounded (not pointed). Bill deep scarlet. *Female* similar but much paler. Flocks in open deciduous forest and stony scrub jungle, to about 1000 m elevation. **Distribution**: A broad belt of central India between a line from Sirohi (Rajasthan) to Hazaribagh (Bihar) in the north, and Khandesh (Maharashtra) to Visakhapatnam ghats (Andhra) in the south. Local and patchy. **Habits**: Sociable. Similar to those of the Red Munia, but is less dependent on damp localities. Lantana scrub country is widely favoured. Flocks of 20 or more birds not uncommon, flying about in the characteristic disorderly undulating rabble and uttering feeble cheeps. **Food**: Chiefly grass seeds. **Nesting**: Curiously enough very little known. *Season* — ill-defined; October to January, and July, mentioned. *Nest* — globular, of coarse grass lined with finer grasses. Placed in a growing sugarcane plant with some of the leaves interwoven into the structure for support. The lateral entrance hole is prolonged to a short neck. Several nests built in close proximity. *Eggs* — 5 (?), white. Both sexes recorded as building the nest and incubating the eggs.

529. **Whitethroated Munia** *Lonchura malabarica* (Linnaeus)

ACN: Whitethroated Silverbill

Plate 64

Syn. No. 1966

Local names: *Pavai munia* (Gujarati); *Charchara, Charga, Charakka, Pidda* (Hindi); *Piduri, Sar munia* (Bengali); *Jinuwayi* (Telugu); *Vayalatta* (Malayalam); *Nellu-kuruwi* (Tamil in Sri Lanka); *Wee-kurulla* (Sinhala).

Size: Sparrow-; same as Whitebacked Munia. **Field Characters**: A plain earthy brown, thick-billed little finch with pointed black tail, white upper tail-coverts and whitish underparts. Sexes alike. Parties or flocks, in dry open scrub country. **Distribution**: The drier parts of all India to about 2000 m elevation in the Himalayas; Sri Lanka; Pakistan. Not Bangladesh, NE. Indian states or Myanmar. **Habits**: Inhabits dry, open cultivated as well as sparse scrub-and-bush country, and avoids the more humid tracts. Its food, call notes and general behaviour do not differ appreciably from those of other munias. **Nesting**: *Season* — practically all year, varying locally. *Nest* — a large globular structure of coarse grasses, lined with softer flowering grass. In cotton-growing districts, cotton wool filched from neighbouring fields is largely employed. Old baya nests are also habitually utilised for laying in. *Eggs* — 4 to 6, pure white. Both sexes share domestic duties. Disused nests serve as family dormitories.

530. **Whitebacked Munia** *Lonchura striata* (Linnaeus)

ACN: Whiterumped Munia

Plate 64

Syn. No. 1967

Local names: *Attakkarupan* (Malayalam); *Nellu kuruvi, Tinayan Tinai-kuruvi* (Tamil in Sri Lanka); *Wee-kurulla* (Sinhala).

Size: Sparrow-. **Field Characters**: A small black and white finch with heavy bluish conical bill and wedge-shaped tail. White rump and white abdomen conspicuous in flight. Sexes alike. Parties, in open cultivated country. **Distribution**: The greater part of peninsular India and a wide sub-Himalayan belt east of Garhwal; W. Bengal; Bangladesh; NE. India; Sri Lanka; Myanmar; Andamans and Nicobars. Four races, chiefly on details of coloration. **Habits**: Goes about in family parties or 6 or 7 or larger flocks. Feeds on grass seeds, etc., on the ground or off the feathery tufts or ears, in and around cultivation. Utters feeble chirruping notes. The flocks fly in a disorderly undulating rabble. **Nesting**: *Season* — practically all year, varying locally. *Nest* — large, untidy, globular, of feathery flowering grasses with a lateral entrance hole, sometimes like a short tube or tunnel. In low dense bushes, 2 to 5 m up. *Eggs* — 5 or 6, pure white. Both sexes share domestic duties. The nests are used as dormitories by the family till long after the young have flown.

531. **Rufousbellied Munia** *Lonchura kelaarti* (Jerdon)

ACN: Blackthroated Munia

Plate 64

Syn. No. 1971

Local name: *Tottakaran* (Malayalam).

Size: Sparrow-. **Field Characters**: Above forehead, wings, tail and rump dark chocolate-brown. Back brown with pale shaft streaks, upper tail-coverts fulvous. Below cheeks, throat and breast blackish brown otherwise pinkish brown. Sexes alike. **Distribution**: Common resident in the northern section of the Eastern Ghats and hills of southwestern India from about Belgaum southwards to Kanyakumari Dist. Also Sri Lanka. Affects scrubland, fallow fields in forest clearings. Prefers higher and wetter country than the Whitebacked Munia. **Habits**: As of the genus. Frequently seen in mixed flocks. **Food**: Grass and weed seeds, rice. **Call**: A high-pitched nasal squeak. **Nesting**: *Season* — April to August. *Nest* — indistinguishable from that of the Whitebacked Munia's. Placed in eaves of thatched houses, and in recesses or holes in trees. *Eggs* — 6 to 8, white. Old nests often used for roosting. Care of nestlings by both parents.

532. **Spotted Munia** *Lonchura punctulata* (Linnaeus)

ACN: Scalybreasted Munia

Plate 64

Syn. No. 1974

Local names: *Telia munia, Seenabaz* (Hindi); *Sinewaz* (Bihar Mirshikars); *Tiley munia* (Bengali); *Kakkara jinuwayi* (Telugu); *Chuttiatta* (Malayalam); *Nellu-kuruvi, Tinna-kuruvi* (Tamil in Sri Lanka); *Wee-kurulla* (Sinhala).

Size: Sparrow-. Same as Whitethroated Munia. **Field Characters**: In breeding plumage upperparts chocolate-brown; lower white, speckled with black. In non-breeding and immature plumage, more or less plain brown. Sexes alike. Flocks, about open cultivation. **Distribution**: All India (excepting the arid portions of Rajasthan and Punjab, up to 2000 m in the Himalayas). Assam; Bangladesh; Sri Lanka; Myanmar. Not Pakistan. Two races, on details of coloration. **Habits**: Typical munia. Flocks sometimes of up to 200 individuals or more, hop about gleaning grass seeds, etc. The birds occasionally also devour winged termites emerging from the ground, and when disturbed fly up into trees and bushes, uttering feeble chirrups. They fly in the same disorderly closepacked undulating rabbles as other munias. **Nesting**: *Season* — Chiefly July to October. *Nest* — a globular structure of grass blades like the other munias', about 20 cm across, and with a lateral entrance hole near the top. Built in a low thorny bush or tree, sometimes several nests together. *Eggs* — 4 to 8, pure white. Both sexes share domestic duties.

533. **Blackheaded Munia** *Lonchura malacca* (Linnaeus)

Plate 64

Syn. No. 1978

Local names: *Nakalnor; Telia munia, Sing-baz, Pora munia, Nukroul* (Hindi); *Nalla jinuwayi* (Telugu); *Attachemban* (Malayalam); *Thinai kuruvi* (Tamil, Madurai); *Nellu-kuruvi* (Tamil, Sri Lanka); *Wee-kurulla* (Sinhala).

Size: Sparrow-. Same as of the other munias. **Field Characters**: A small chestnut, black and white munia with typical short, heavy, conical bill. Head, neck and upper breast, vent, thighs and under tail-coverts black. Abdomen white. Sexes alike. Flocks, on marshy tall grassland. **Distribution**: Peninsular India south of about Madhya Pradesh, and Sri Lanka. Not Bangladesh, Pakistan or Myanmar. **Habits**: Partial to swampy low-lying and ill-drained areas with feathery grass and reeds, and the vicinity of wet paddy cultivation in forest. Otherwise not different in habits, food or voice from the other munias described. **Nesting**: *Season* — principally the monsoon, June to October, varying with local conditions. *Nest* — a large ball of coarse grasses, lined with finer grass, with a lateral entrance hole. Built in low bushes or amongst coarse grass stems. *Eggs* — 5 to 7, pure white.

534. **Rosefinch** *Carpodacus erythrinus* (Pallas)

Plate 64

Syn. No. 2010

Local names: *Tuti, Lal tuti* (Hindi).

Size: Sparrow+. **Field Characters**: Both in the rose coloured male and the brownish female the heavy conical finch bill and the slightly forked tail are noticeable feathers. Flocks, in wooded country and about cultivation. **Distribution**: The Indian race *roseatus* which chiefly concerns us, breeds at 3000 m and higher in the Himalayas from Kashmir to eastern Tibet. In winter it spreads out practically all over the Indian Union, Bangladesh, Pakistan, and Myanmar. Not Sri Lanka. **Habits**: Found south of the Himalayas between September and May. Keeps in flocks to wooded country, feeding on lantana and other berries, wild figs and flower buds, bamboo seeds, linseed and cereals. Flower nectar of *Butea, Erythrina* and other flowers is also relished, and the birds do serve in cross-pollinating them. Ordinary call note: a musical whistling, interrogative *tooee? tooee?*. Just before departure for breeding grounds a loud, pleasant song sometimes heard. **Nesting**: *Season* — June to August. *Nest* — a cup of grass lined with fine roots and hair, placed in a wild rose or similar bush, 1 to 2 m up. *Eggs* — 3 or 4, blue, spotted and speckled with blackish and light red. Both sexes share domestic duties.

535. **Blackheaded Bunting** *Emberiza melanocephala* Scopoli

536. **Redheaded Bunting** *Emberiza bruniceps* Brandt

Plate 64

Syn. No. 2043 & 2044

Local names: *Gandam* (Hindi); *Zarden drushk* (Baluchi); *Booree* (Sindhi = 'deaf', as no amount of shouting will scare them from the crops!).

Size: Sparrow+. **Field Characters**: Slender yellow sparrowlike birds with longer, noticeably forked tail. Female of Blackheaded pale fulvous brown above with the rump tinged chestnut; of Redheaded Bunting ashy brown with the rump tinged yellow. Lower plumage in both pale fulvous, washed with yellow. Large flocks about cultivation, commonly of both species together. When massed on green trees look like clusters of yellow blossoms in distance. **Distribution**: Winter visitors to Pakistan and the greater part of peninsular and continental India. The Blackheaded confined chiefly to the western side south to Belgaum; the Redheaded extending east to Chota Nagpur, south to Coimbatore. **Habits**: The birds arrive September/October and depart again March/ April. They keep in enormous flocks or 'swarms' to open cultivation of jowari, wheat, etc., particularly where the fields are interspersed with bush and babool jungle and may do considerable local damage to the ripening crops. Call note in winter quarters a musical *tweet*. The loud, pleasant, whistling song of the males is sometimes heard before they depart for their breeding grounds. **Nesting**: The Blackheaded Bunting nests in W. Asia and E. Europe. The nearest breeding ground of the Redheaded species is in Baluchistan. *Season* — May/June. *Nest* — cup-shaped, of weed stalks and fibres lined with goat's hair. Well concealed in bushes, 1 to 2 m up. *Eggs* — normally 5, pale greenish white, speckled and spotted with dark brown, lavender, and grey.

537. **Striolated Bunting** *Emberiza striolata* (Lichtenstein)

ACN: House Bunting

Plate 64

Syn. No. 2057

Size: Sparrow. **Field Characters**: *Male*: Brown with darker streaks, above crown greyish white streaked with black. A white supercilium and blackish stripe behind eye. Wings bright rufous. Throat, breast greyish white streaked with black. White stripe on throat, dark moustachial streak. Belly fulvous. *Female* has brown head and throat dark streaked. **Distribution**: Resident, common, but locally distributed. Pakistan, North-West India, Southern U.P., Central Madhya Pradesh and Central Maharashtra. **Habits**: Affects rocky hill sides with sparse thorn or euphorbia scrub, nullahs, tamarisk scrub, etc. Seen in pairs or flocks feeding on the ground, hopping about like a sparrow. Unobtrusive. **Food**: Seeds. **Call**: Song a lively *which which wheech whichy which* uttered from top of a bush, stone, or ruined building. **Nesting**: *Season* — February to November. *Nest* — a cup of roots and grass lined with feathers under a rock or a niche in a crumbling wall. *Eggs* — 2 or 3, pale blue, spotted and speckled with brown. Both sexes share parental duties.

538. **Crested Bunting** *Melophus lathami* (Gray)

Plate 64

Syn. No. 2060

Local name: *Pathar chiria*? (Hindi).

Size: Sparrow. **Field Characters**: A black-and-chestnut, crested, sparrow-like bird with rather the colour scheme of the Crow-Pheasant. Female dark brown with cinnamon colour in wings and tail; also with prominent pointed crest. Singly, pairs or small scattered parties, on stony scrub-covered hillsides and about forest cultivation. **Distribution**: Found locally and patchily throughout the lower Himalayas, up to about 1500 m from Kashmir to E. Assam; Mount Abu, Rajasthan and central India south to about Satara, east to Bihar. Also portions of Myanmar. Seasonal local migrant. **Habits**: Gleans grass seeds and grain on the ground, flying up into bushes when disturbed. Partial to recently burnt, charred stony patches in dry grass and pole forest. Utters *pink, pink* like a munia, but louder. Song of breeding male rather like Pied Bushchat's: *which ... which ... which-whee-whee-which* (accent on second *whee*). **Nesting**: *Season* — April to August, varying locally. *Nest* — a deep cup of grass lined with fine rootlets, in a pocket in earth-cutting or under a stone or grass tuft on a hillside. *Eggs* — 3 or 4, pale greenish grey, freckled with purplish brown, densely at broad end. Both sexes share in nest building and feeding young.

SOME NESTS AND NESTING BEHAVIOUR

In the Introduction I said that 'For the safety of their eggs and young, birds build nests which may range from a simple scrape in the ground, as of the Lapwing, to such elaborate structures as the compactly woven nest of the Weaver Bird'. To complete the picture, it may be added that most birds incubate their eggs with the heat of their bodies by brooding them, and show considerable solicitude for their young until they are able to fend for themselves. In this chapter I shall consider the main types of nests built by Indian birds and deal briefly with the nesting behaviour of some of the builders.

Nesting Seasons

Broadly speaking, the majority of our resident birds have more or less well-marked seasons in which they lay their eggs and rear their young. The periods favoured by different species vary somewhat in the different portions of their distribution, depending upon geographical position and local climatic conditions. The season in India as a whole is perhaps nowhere as clear-cut as in the Temperate and Arctic zones. In the lower Himalayas and the country about their base, most species commence their nesting operations with the advent of Spring, which may be put down as the beginning of March. The farther south one moves towards the Equator the more equable does the climate become, so that the most important seasonal change in those parts is the one brought about by the monsoons, particularly the South-west monsoon. Birds that nest in tree-holes, as well as the ground-nesting species must be discharged of their parental duties before the onset of the SW monsoon in June. In North India it is of vital importance for such birds as nest on sandbanks in the larger rivers to have finished their activities before the rivers swell in summer due to melting of the Himalayan snows. Therefore, March and April are the principal months in which to look for the eggs of river birds.

The SW monsoon — June/July to September/October — is the time when the annual vegetation is at the height of its luxuriance and insect life at its peak. In these respects the season corresponds to Spring in the more northerly latitudes. A large section of Indian birds of diverse families and species find optimum conditions for bringing up families during this period of plenty. By about mid-October the majority of young birds of the monsoon-breeding species have left their nests. The raptors, or birds of prey, commence their nesting activities about this period and are busy throughout the winter months up till about the end of February. It is often quite late in March or even the middle of April before the young of some of the larger forms — vultures and eagles — have launched into the world. Young raptors have astonishingly healthy appetites. The continuous supply of animal food the parents are obliged to procure for them makes the choice of this season a happy one; young birds are then plentiful and easily hunted, and their numbers are augmented by vast hordes of winter immigrants from beyond our borders.

Territory, courtship and song

Individual breeding pairs usually occupy a 'Territory' in the surroundings of their nest which is treated as their special preserve and into which intrusion by other members of the same species is regarded as an unfriendly act, to be actively resented. The acquisition of breeding territories is a fairly general practice among birds, but not universal. Their existence is particularly noticeable in the more aggressive species, like the Black Drongo. Territory is acquired by the male. In migrant species this accounts in a measure for the fact that on Spring passage when journeying to their breeding grounds, the males usually precede the

females. Having arrived in the breeding locality, the male proceeds to stake out and establish possession of an area, usually more or less definable and varying in extent according to species and to the density of its avian population. In the process it may have to fight for ownership with another male already in occupation, or in defence of its territory against an interloper. Once in secure possession, the male awaits the arrival of the body of females and advertises his presence and the availability of a nesting site by singing full-throatedly from exposed situations. The song serves not only to attract likely females, but also as a warning to rival males to keep off. Having secured a female, in the process of which again there is often much active hostility between rival males, courtship displays commence. These take numerous forms; fluffing out of the ornamental plumage, fanning and erecting the tail and dancing or posturing in front of the female, as in the Peacock and many pheasants, being some of the more spectacular. The extravagant aerial contortions of shooting skywards and nose-diving to the accompaniment of raucous screams indulged in by the Roller or 'Blue Jay' in love are a familiar sight at the commencement of the hot weather. There is an infinite variety of courtship behaviour ranging from the sublime to the ridiculous. Again, Song — which reaches the climax of its intensity in the breeding season — plays a predominating part in the courtship ceremonials of certain birds, the skylark and thrush for example. All this feverish activity is indulged in either by one partner or by both, and has for its ultimate object the rousing of the necessary physiological response for successful breeding.

In birds where the sexes differ in coloration it is the male who is the more showy and who takes the initiative in the display and courtship ceremonials (except in the case of polyandrous species where the normal conditions are reversed). In birds where the sexes are outwardly alike, as in larks and pipits, they apparently recognise each other's sex only by the mutual response to each other's behaviour.

Coloration of eggs

The colour patterns of birds' eggs are almost as varied as the birds themselves, or as the architecture of their nests. Egg-coloration suggests an advanced stage of evolution; the ancestors of birds — the reptiles — lay only white eggs. Birds that nest in tree-holes or earth-tunnels also lay white eggs since, as in reptiles, the required protection is afforded them by the situation. It cannot be denied that in the main the coloration of eggs is a protective device and in a general way bears a direct relation to the types of nests in which they are laid. The eggs of the Yellow-wattled Lapwing deposited on barren, open wasteland, and of the Tern in a sandy river bed are convincing examples. They match the soil and blend with their surroundings to such perfection that they are quite invisible at a few feet's distance even when diligently looked for. The eggs of the Pheasant-tailed Jaçana, often laid directly upon floating singara (*Trapa*) leaves, resemble the surrounding olive-brown vegetation so closely as to be completely obliterated from view. Anomalies, however, are not wanting. Thus the eggs of the Rain Quail laid in grassland are obliterative, whereas those of the Bush Quail, laid in not much more sheltered sites, are white!

Types of nests

The following are the main types of birds' nests found in India:

1. **Simple scrapes** in the ground sparsely lined with grass and leaves, e.g. quail, junglefowl and other game birds, or with no semblance of lining, e.g. tern and lapwing. Protection is secured by the eggs and young of such birds through their remarkably obliterative coloration.

PLATE 65

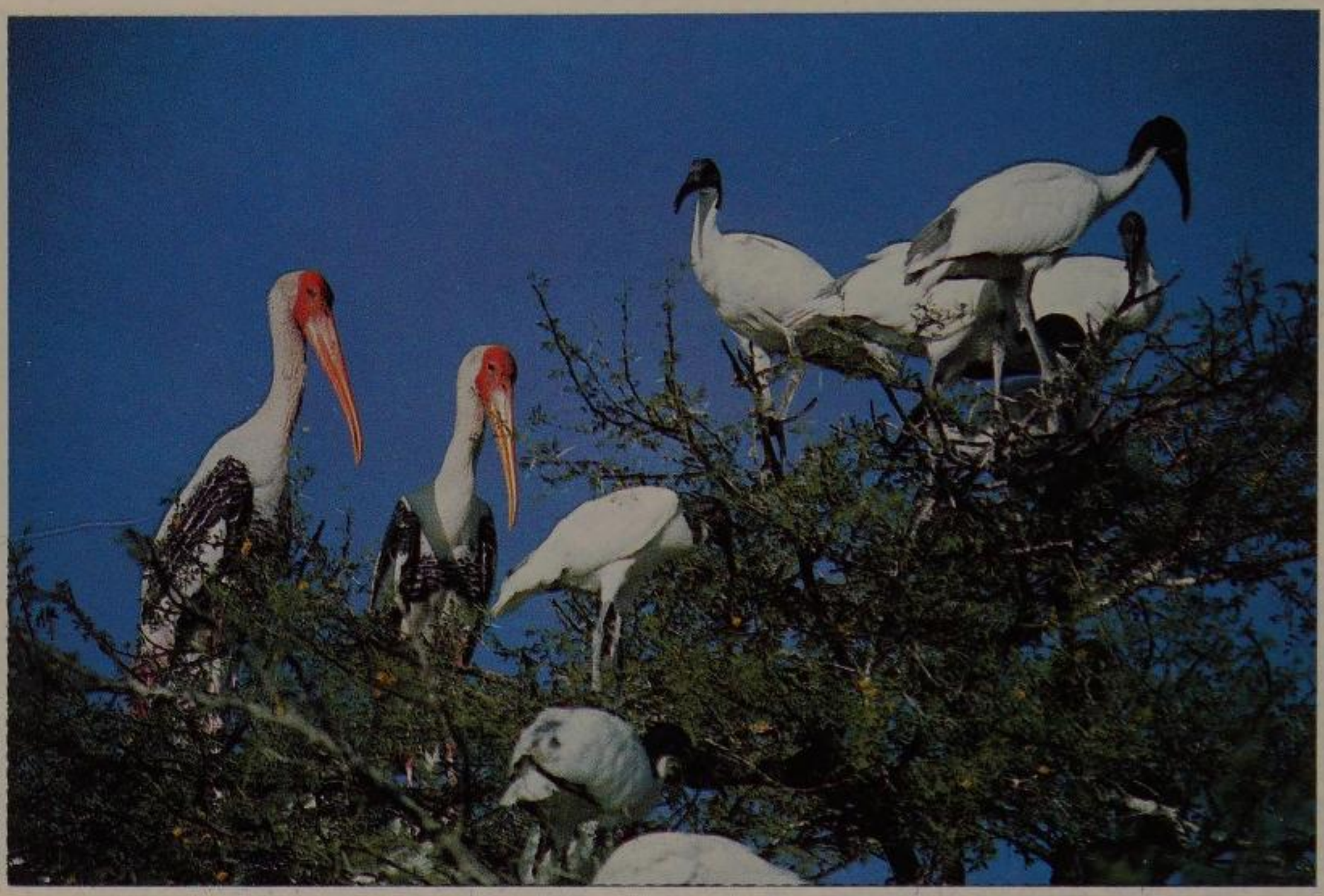
VIVEK R SINHA/PORPOISE PHOTOSTOCK

Mud nest of the Cliff Swallow

M.K.KUPPURAJ/PORPOISE PHOTOSTOCK

Little Ring Plover at nest

PLATE 66



RISHAD NAOROJI

Mixed heronry of Painted Storks and White Ibises

RISHAD NAOROJI

Nesting Bronzewinged Jacana

2. **Twig nests** like platforms with a cup-like depression in the centre usually lined with softer material — grass, tow, feathers, etc. This type, built in trees or on buildings or cliffs, is common to a large number of birds of different families, e.g. crow, kite, dove, vulture, cormorant, stork, etc.

3. **Nests in tree-holes** either excavated in living or decayed wood, or in natural hollows, and either with a sparse lining of soft material or unlined, e.g. tits, Yellowthroated Sparrow, woodpeckers, barbets, hornbills, owls, some mynas and most of our resident ducks. The holes are in the first instance cut by woodpeckers, parakeets or barbets and subsequently appropriated in rotation by many other species. Nesting in natural tree hollows is a common habit among our resident ducks, all of whom breed during the SW. monsoon. The raised situation gives security against sudden rise of water level in the jheels due to cloud-bursts or the swelling of streams flowing into them. The ducklings reach the water by tumbling out of the nest and are not carried down by the parents as has sometimes been asserted.

4. **Nests in excavated tunnels in earth-banks** or in clefts of buildings, rock cliffs, etc., e.g. bee-eaters, kingfishers, hoopoe. The tunnels are driven horizontally into the side of an earth-cutting or bank of a stream, the bird using its bill to dig and its feet to kick back the loose earth. The tunnels are from a few inches to several feet in length and usually bent near the extremity where they widen into a bulbous egg chamber.

5. **Nests built entirely of mud** or in which mud predominates, e.g. Whistling Thrush, blackbirds, swallows, martins. The wet mud is commonly collected at rain puddles. It is mixed with a certain amount of saliva in the case of swallows. There is a marked increase in the size of the salivary glands of these birds and swifts during the breeding season. Swallows' nests have perforce to be built very gradually, pellet by pellet, so that not too much of the material is daubed on at one time before the underlying layer is sufficiently dry.

6. **Cup-shaped nests of grass** and fibres in crotches or forks of branches, usually well plastered over with cobwebs, e.g. iora, fantail, and other flycatchers, orioles, white-eye, minivets, reed warblers, cuckoo-shrikes, etc. Cobwebs are very extensively employed as cement in bird architecture, for binding the material compactly and neatly together. It is collected by being twisted round and round the bill and is then unwound and attached on the exterior of the nest, or used in securing the nest into position.

7. **Domed or ball-shaped nests** of twigs, grass or rootlets with a lateral entrance hole, e.g. munias, Rufousbellied Babbler.

8. **Pendant nests**, e.g. weaver birds (woven), sunbirds, flowerpeckers. The sunbird's nest is a vertical oblong pouch suspended from the tip of a thin outhanging twig, usually not high above the ground. It has an entrance hole at the side with a little projecting porch over it. The exterior is draped untidily with pieces of bark, caterpillar droppings, and spiders' egg-cases which give it an effective camouflage. The flowerpecker's nest is a hanging pouch of the same general pattern, but made entirely of seed- and vegetable down worked into a felt-like fabric.

9. **Woven oblong purse** - loofah-like — attached to stems of tall grass or low bushes, e.g. wren-warblers (alternative to the next type).

10. **Nest in leaves stitched together** in the form of a funnel, e.g. Tailor Bird, Franklin's Wren-Warbler, Ashy Wren-Warbler.

There are yet other nests of less conventional design. The edible-nest swiftlets which breed in vast colonies, attach their half-saucer shaped nests made entirely of the birds' saliva or with an admixture of straw and feathers, to the sides of the rock in dark grottoes and caves on islands in the sea. The Palm Swift makes a rather similar nest but with more feathers reinforcing it, attached to the leaves of the Palmyra palm and usually well concealed among the furrows. The Rufous Woodpecker makes its home in the carton-nests of certain tree ants, and seems to live on terms of amity with the insects.

A distinction must be made between birds that nest in individual pairs in usually well-recognised territories, like the Black Drongo for example, and those that nest in colonies. Some familiar examples of the latter are the weaver birds, cliff swallows, common and edible-nest swifts, and water birds such as storks, cormorants and herons.

Whatever its pattern, the nest is always true to the type of the species that builds it, and is primarily the outcome of instinct fixed and inherited through countless generations of builders. That a young Baya in its first season builds a nest exactly like the one in which it was born is neither the result of training by its parents nor of intelligence as we understand it. The architecture may be improved and perfected with practice, but the design will remain constant. Experiments have shown that birds hatched in an incubator who can therefore have no idea of the sort of nest built by their kind, will, at the appointed time, build nests after their own specific pattern. A great deal of the other seemingly intelligent behaviour of nesting birds, such as solicitude or love for their offspring, and the 'broken wing' trick practised by many different species to draw off an intruder from the nest or young, prove upon analysis to be largely, if not wholly, the working of a blind and unreasoning instinct.

This chapter would be incomplete without special mention of the remarkable nesting habits and behaviour of four of our Indian birds.

The Hornbills

The first of these is the hornbill whose prodigious beak at once makes him unmistakable. His nesting habits are in keeping with his unusual get-up. All our hornbills, as far as is known, share this peculiar behaviour. Their commonest representative, the Grey Hornbill may be taken as the type.

At the appointed season, after the courtship and pairing ceremonials have been duly performed, the female hornbill betakes herself to a natural hollow in some tree-trunk, the same perhaps as has served for nursery to numerous previous hornbill generations. She incarcerates herself within this hollow, using her droppings as plaster and the flat sides of her enormous bill as trowel to wall up the entrance, merely leaving a narrow slit through which to receive the food brought in by the male. This walling-up process occupies 2 or 3 days and it is doubtful if the male assists her at all in the work, except presumably in fetching the mud. For it is now ascertained that besides the female's own excrement there is a considerable proportion of mud or clay mixed in the cement. The plaster sets so hard that no ordinary predatory animal can get at the occupant within. From this self-imposed confinement the female does not free herself until after the young — 2 or 3 in number — hatch out and are about a fortnight old. All the time she is within, the male assiduously brings her food — banyan and peepul figs varied occasionally by a lizard or some other tit-bit. The heavy labour of foraging for his spouse wears him down to a skeleton, while she thrives exceedingly on this life of ease and plenty and is said to grow enormously plump. In the case of the closely related Great Indian Hornbill it is believed that during her

PLATE 67

AMRUT DHANWATAY/PORPOISE PHOTOSTOCK

Hammock nest of the Golden Oriole

SUNJOY MONGA/PORPOISE PHOTOSTOCK

A migratory flock of Pintail Ducks

PLATE 68

SUNJOY MONGA/PORPOISE PHOTOSTOCK

Great Indian Hornbill

KRUPAKAR-SENANI/PORPOISE PHOTOSTOCK

Rufous Woodpecker at carton nest of *Cremastogaster* ants

incarceration the female moults her flight quills, so that the imprisoning wall gives her protection from predators at a time when she is most helpless. This question of moult, however, and the manner of its taking place needs further investigation. When the young are about a fortnight old the female breaks down the wall by hammering away patiently at it, and releases herself. After her exit the wall is usually built up once more and thenceforth father and mother slave to fill the hungry maws of the voracious squabs until such time as they are old enough to be let out to fend for themselves.

The Baya

The Baya Weaver Bird is a cunning polygamist with a system of his own. At the onset of the rainy season, the males, now in their handsome breeding dress, commence to build their wonderful retort-shaped pendant nests, chiefly on babool trees or date palms preferably standing in or overhanging water. The building parties which may consist of from 10 to 50 birds or more are comprised exclusively of cocks. A great deal of noisy, joyous, chirruping choruses and fluttering of wings accompanies the work. After the strands of the initial attachment are wound and twisted round and round the selected twig till a firm support is secured, the bird proceeds to work the loose strips dangling from it into a transverse oblong loop. This is the skeleton of the structure. Porches are built over the upper part on either side of this loop and continued down, one bulging out lower into the egg chamber, the other less bulgy being produced to form the entrance tube. When the nests have reached the crucial 'bell' or 'helmet' stage, there is a sudden visitation from a party of prospecting hen Bayas who have been completely absent from the colony hitherto. They hop about from nest to nest, deliberately entering to inspect the interior, seemingly indifferent to the amorous prancing, strutting and chittering advances of the cocks around them. If a hen is satisfied with a particular nest she calmly 'adopts' it and moves into possession. Thenceforth she and the builder are wife and husband. He works assiduously to complete the nest while she busies herself mainly with tidying the egg chamber. As soon as this nest is completed and the hen settled on eggs within, the cock commences to build himself another nest on a nearby twig. In course of time this too if approved, is similarly appropriated by a second prospecting female who then becomes Wife No.2. The process may be repeated until the cock finds himself the devoted husband of 3 or even 4 wives and the fond father of as many families, all at once!

The Bustard-Quail

The normal condition among birds is that where the sexes differ in coloration, it is the male who is the brighter coloured and more showy. He displays his splendour before the female, courts her and if need be fights furiously with rival males for her possession. In the Bustard-Quail, however, the role of the sexes is reversed. Here it is the female who is the larger and more brightly coloured and who takes the initiative in affairs of the heart. She decoys eligible males by a loud drumming call, courts them sedulously, displaying all her charms before them, and engages in desperate battles with rival Amazons for the ownership of the favoured one. As soon as the husband is secured, the preliminaries over and the full complement of eggs laid, she leaves him to his own devices and wanders off in search of fresh conquests. The unfortunate husband is saddled with the entire responsibility of incubating the eggs and tending the young which, to his credit, he discharges admirably and with great solicitude. By feminine artifice the roving hen manages to inveigle another unattached cock, who is likewise landed with family cares. And she is once again in the market, for a third husband! In this manner each hen may lay several clutches of eggs during a single season which, accordingly, is much prolonged. The Painted Snipe is another Indian species which is similarly polyandrous, while the two Jaçanas are yet others.

The Parasitic Cuckoos

A large section of the cuckoo family is known as the Parasitic Cuckoos on account of their disreputable habit of building no nests of their own but utilising those of other birds for laying in, and foisting their parental responsibilities upon the dupes. Familiar examples of our parasitic cuckoos are the Brainfever Bird and the Koel. The former commonly lays in the nests of babblers, often removing one of the rightful eggs to make room for its own. The Koel habitually parasitizes the House and Jungle Crows and leaves to them the task of incubating its eggs and rearing its young. The eggs of parasitic cuckoos usually bear a remarkably close resemblance to those of their hosts or fosterers. It is believed that this similarity has been brought about gradually by the discrimination exercised by the fosterer, i.e. by its rejecting, generation after generation, such eggs as differed glaringly in size or coloration from its own. There is good evidence that even among parasitic cuckoos of the same species there are distinct strains or 'gens' which are as a rule constant in their selection of fosterers. Thus Plaintitive Cuckoos in Hyderabad City (Deccan) habitually lay in the nests of the Ashy Wren-Warbler while those in the surrounding country favour nests of the Tailor Bird. Now, the eggs of the wren-warbler and those of the tailor bird are markedly unlike, but those of the respective strains of the plaintive cuckoos have evolved through Natural Selection to match the eggs of their normal fosterers in either area.

We have still a great deal to learn about the breeding biology of even some of our commonest birds. Egg-collecting alone is not enough. Some of the points on which detailed information is desirable are (1) The share of the sexes in nest-building, incubation and care of the young, (2) Periods of incubation, (3) Interval between the laying of each egg in a clutch (this varies among species and groups), (4) Nature of food and quantity fed each day to the young, (5) Behaviour of parents and young.

Those interested in the nesting habits of Indian birds should read BIRDS AT THE NEST by Douglas Dewar which, though written over 40 years ago, contains some useful indications of what still remains to be done in this country. For the serious student there is nothing more comprehensive than the four volumes by E C Stuart Baker — NIDIFICATION OF BIRDS OF THE INDIAN EMPIRE. His subsequent CUCKOO PROBLEMS is a mine of information on questions relating to Indian parasitic cuckoos.

FLIGHT

EVEN persons who may know nothing else about birds except that some are good to eat, know this much that birds fly. Indeed so snugly is this notion fixed in the popular mind that it is sometimes not easy to convince people that everything that flies is not a bird. Witness the widespread confusion that exists over the natural position of the bats.

Up to a point the criterion of flight is perhaps justifiable since this type of locomotion is not enjoyed in the same degree of perfection by any other class of animals. The only other backboned animal that flies is the bat, but the structure of the bat's wing is comparatively clumsy. An elastic membrane of skin stretches between its enormously elongated fingers, and the whole organ lacks the perfection of the bird's wing. While perfect flight is certainly the bird's most outstanding qualification, it must not be forgotten that there exist a number of birds — such as the ostrich and the penguin — that do not fly at all. Recent anatomical research suggests controversially that ostrich-like birds never possessed the power of flight. But in the penguin this is certainly the result of disuse of the wings as flying organs by countless generations through thousands of years. In lesser degree a similar result of disuse can be observed in the case of our domestic poultry — geese, ducks and fowls — whose wild ancestors are strong fliers even today.

The wing of a flying bird combines strength with lightness and flexibility in a manner that can scarcely be improved upon. The structure of the bones of the hand and forearm, and the arrangement of the flight feathers upon it — opening out when required, and folding up one beneath its neighbour like the blades of a fan when not in use — is the most efficient and economical that can be conceived. The bones of the wing are kept in place by a ligament or elastic band running along the front of both the upper and lower arms. This prevents the joints being completely extended and the wing from turning inside out like an old umbrella in a gale, when extra pressure of the air exerts along the fore-edge. Details of the structure of the flight quills themselves do not concern us here; they combine strength, elasticity and lightness unequalled by any other similar device in nature. When extended in flight they overlap in just the right proportions, with one broad and one narrow vane, to attain the maximum efficiency in supporting and propelling a bird in the air with the minimum expenditure of its energy. Equipped with these quill feathers — the Primaries chiefly for locomotion, the Secondaries for lift — the bird's wing is so built and attached to the body that as a unit it can be moved freely in every plane. The primaries (better terms 'hand-quills' in the German) usually number 10-12 in each wing. The secondaries ('arm-quills') vary from 6 as in humming-birds and swifts to 20 in pelicans and up to 40 in albatrosses, depending upon the respective style of flight.

The motive power operating the wings is supplied by the strongly developed pectoral muscles. The sternum or breast bone is provided with a deep keel or ridge — the carina — to the edge of which most of these muscles are attached. Among them are some that help to depress the wing and provide the propelling stroke, and others working by means of a tendon, in rope-and-pulley fashion, to raise the wing in preparation for the next power stroke. The position of these enormous muscles — *below* the point at which the wing is inserted into the body — is a noteworthy feature since it makes for stability in flight. Like the engines of the modern aeroplane they form a considerable proportion of the bird's total weight. For example, in the snipe, a bird well known for its speed and dexterity on the wing, they weigh as much as a quarter of its entire weight.

To withstand the stresses and pulls exerted by the powerful breast muscles a rigid framework is obviously essential, combining strength with lightness. Such a framework is admirably provided by the various adaptations in the bird's skeleton. The hard hollow bones ('tubular construction')

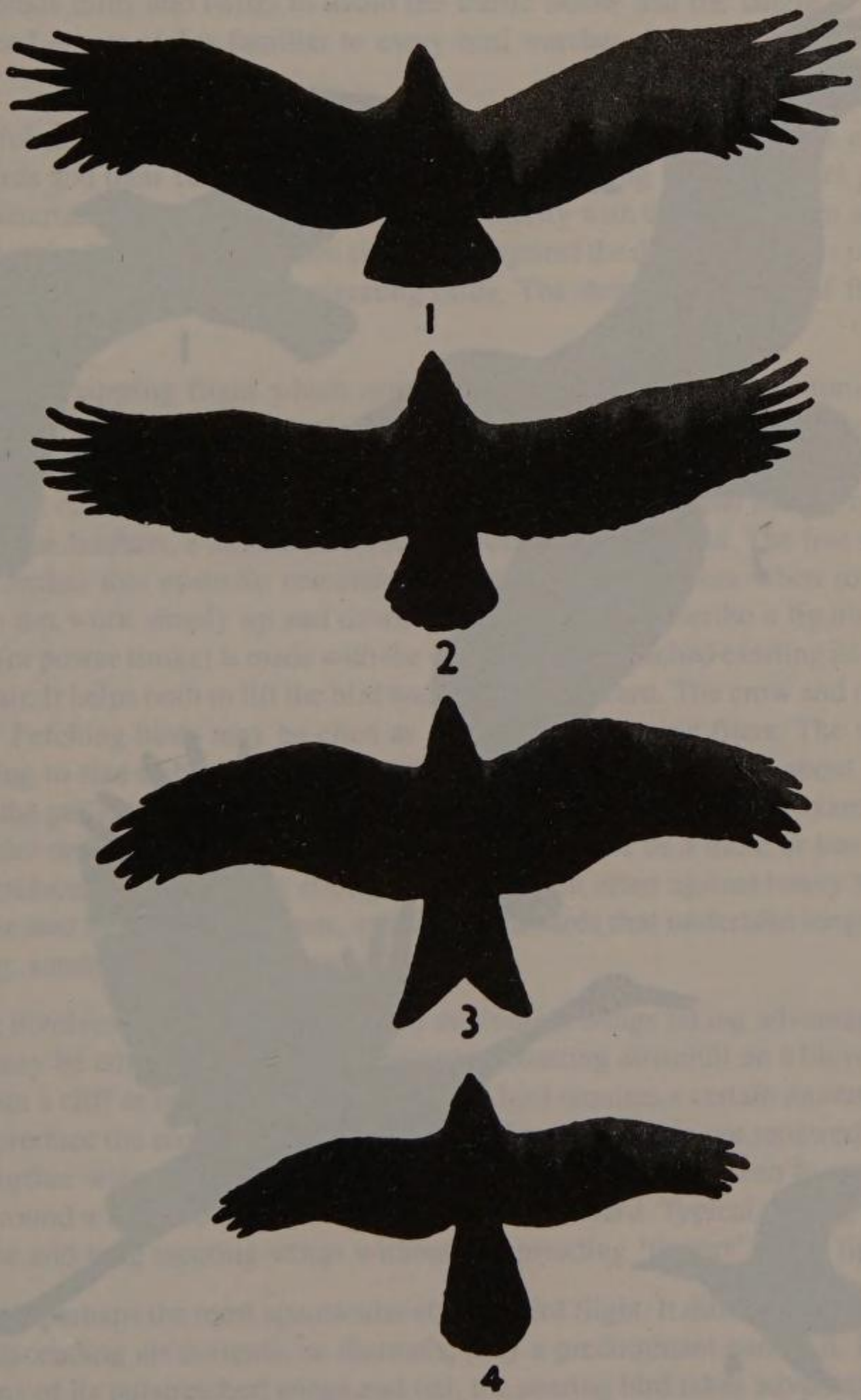
make the lightness, and the fusions in the vertebral column ('welded joints') effect rigidity in sections of the back where the strain is greatest. The pelican, a heavy-looking water bird weighing about 11 kg. has a skeleton of rather under 700 gm.

The flying bird has excited Man's imagination and envy throughout his long history, and many have been his unsuccessful attempts from time to time to emulate it. I have already referred elsewhere to the estimate that for a man, to be able to lift himself off the ground on wings on the bird model, he would have to develop his pectoral muscles till they projected at least 4 feet beyond his chest. The angels and cherubim of holy portraiture must indeed be hard put to it to keep themselves aloft without such monstrous outgrowths!

The wing actions of a bird in flight are actually less simple than the up and down flapping they appear to be. They involve a number of complex principles of aerodynamics which have been more intensively studied and are better understood since the invention and development of the aeroplane and the glider. Modern aircraft design owes a great debt to the careful analyses of the principles involved in the flight of birds. The improvements continually being made in flying machines keep pace with our knowledge of the mechanics of bird flight. A remarkable and comparatively recent example of how flying man has profited from the flying bird was the invention of the Handley-Page 'slotted-wing' safety device now almost universally used in aeroplanes. A well-known principle of aerodynamics is that the heavier a plane the faster it must fly to keep itself in the air and prevent 'stalling'. The use of the slotted-wing device enables heavy aircraft to land safely at relatively slow speeds without crashing. It has not only helped to avert innumerable accidents, but also made possible the enormous increase in the size and weight of the planes we see today: the largest modern passenger plane, the Boeing-747, weighs over 350 tons. Briefly, by regulating the pressure and angle of the air upon the wings of an aeroplane this contrivance produces what may roughly be described as a parachute or helicopter effect and enables the machine to fly comparatively slowly and land gently. The device is clearly an application of the same feature as is seen in the splayed fingerlike wing-tips of heavy flying birds with relatively broad wings, such as eagles, vultures and storks. If one of the outer primary feathers of a vulture is examined it will be seen that there is a conspicuous narrowing, or 'emargination' as it is known, on the outer portion of the vane, i.e. on the outer web. The gaps or slots between the outspread primaries (or 'fingers') of a soaring vulture are formed not only by the normal spreading of the primaries but they can be further considerably widened by these emarginations. A clever friction surface on the web prevents the feathers from splaying beyond a certain limit. By manipulating the slots between the primaries, so as to offer varying and controlled resistance to the air, rather in the manner of venetian blinds or shutters, the heavy bird is enabled among other advantages to soar in comparatively still air. It also permits accurate landing at a speed which would ordinarily be unable to withstand the pull of gravity, and bring the bird crashing to earth, unless it steadied itself by flapping.

The bird's tail is an important accessory of flight and assumes a variety of shapes and sizes, e.g. the short rounded tail of the eagle and the vulture, the deeply forked tail of the swallow, the tern and the kite, and the long graduated tail of the tree pie. Its primary function is that of balancing and steering. If accidentally lost, the bird's movements in the air are considerably hampered; but it is not rendered completely helpless since much of the steering, balancing and braking is also done by the wings. The tail further helps in regulating height in the air, and of course serves as a brake in checking momentum. It is noticeable that the alighting or landing of a bird is invariably preceded by an upward tilt of the long axis of its body accompanied by a vigorous flapping of wings and a depressing and expanding of the tail.

PLATE 69



1. Vulture 2. Eagle 3. Kite 4. Kestrel

Flying Silhouettes

1. Gull 2. Pelican 3. Crane 4. Duck

Flying Silhouettes

No better example can be given of the perfect muscular control over wings and tail and the co-ordinated efficiency of the various special adaptations of the flying bird (viz. streamlining, flexibility of neck, sideways position and rapid focusing of eye, etc.) than the Alpine Swift. Cruising at speeds which may be anything up to 250 km p.h., this bird is capable of shooting directly and with effortless grace up into the narrow fissure of a rock cliff that holds its nest. The ease and skill with which the parent Baya flies into the narrow entrance tube of its swaying pendant nest with no hesitation or slackening of speed; the stooping of a Pariah Kite upon a dead rat lying in the middle of a congested city bazaar, and its dexterous turns and twists to avoid the traffic below and the tangle of telephone wires overhead — are sights familiar to every bird watcher, and such as never cease to thrill.

It is useful to be able to recognise the style of flight adopted by various groups and species of birds and their sundry little mannerisms on the wing since these are points that may assist materially in field identification. A familiarity with the wing action and outline of a bird high up in the heavens, or when silhouetted against the darkening sky, is particularly helpful in observations relating to migrating birds. The three main types of flight to be differentiated are :

1. The normal **flapping** flight which may be roughly compared to swimming breast-stroke. In this the wings move upward and forward, downward and back (under the plane of the body) and then upward again, in a sort of rotary motion. The upstroke is very rapid but owing to the curvature on the wing surface (the camber), the partial folding of the wing and the set of the feathers, a minimum amount of resistance is created. The free movement of the wing makes this upstroke resemble the 'feathering' of an oar when rowing. The wing tips do not work simply up and down but they roughly describe a figure of 8. The downstroke (or power stroke) is made with the wing fully outstretched exerting its maximum push on the air. It helps both to lift the bird and propel it forward. The crow and most of the Passerine or Perching birds may be cited as examples of flapping fliers. The wing-beats vary according to size of bird and speed of flight: while the sparrow has about 13 strokes per second, the pelican has only 1 to 1.5! A short, rounded wing (as, for example, in the Jungle Babbler or Spotted Owlet) is the mark of a weak flier or a more or less sedentary bird. Long, pointed wings indicate strong sustained flight often against heavy head-wind, and are possessed by pigeons, falcons, swifts and all birds that undertake long migratory journeys, e.g. sandpipers, wagtails, etc.

2. **Gliding** involves sailing on outstretched motionless wings taking advantage of wind currents. It may be compared to 'free-wheeling' or coasting downhill on a bicycle. Unless launched from a cliff or other elevated position the bird requires a certain amount of initial flapping to produce the required momentum. And if momentum is not renewed from time to time by further wing-beats, loss of height results. Gliding is best seen in gulls circling effortlessly round a ship looking for scraps thrown overboard. Typical gliding birds have rather narrow and long tapering wings without outspreading 'fingers' at the tip.

3. **Soaring** is perhaps the most spectacular style of bird flight. It differs little from gliding except that ascending air currents, or thermals, play a predominant part in it. By various manipulations of its outstretched wings and tail, the soaring bird takes advantage of every current and eddy to gain height. The upward soaring of vultures and storks is achieved in loose, wide spirals like the coils of a spring. As the bird glides downwind it gains in momentum but loses somewhat in height. By a slight tilt of the body axis as it wheels round to face upwind, the bird is lifted upward without effort, and gradually gains height, spiral upon spiral, until it soon becomes a speck in the heavens. Since soaring depends

largely upon ascending currents it is seen at its best in warm regions of the globe such as ours, and here only between the hours of sunrise and sunset when the heated air rushes up to higher levels.

Birds that habitually soar, such as vultures, eagles, storks, pelicans, etc., have relatively broad wings with rounded or squared wing-tips terminating in a finger-like spread of the outer primaries — the 'slotted-wing device'.

Besides these three main types of flight one must learn to recognise their variations and combinations. For instance woodpecker or wagtail flies by a succession of rapid wing-beats followed by a short pause in which the wings are pressed to the sides of the body. This results in a forward dip and a slight loss of height, and produces the well-known *undulating* effect so characteristic of these species. In other birds, e.g. partridge, shikra, brainfever bird, rosy starling, etc., a succession of rapid wing-beats is followed by a short glide on outstretched motionless wings — free wheeling — in which the bird does not lose height; its flight is *direct* and not undulating.

The hovering flight of certain birds needs special mention. Its foremost exponents among our Indian species are certainly the Kestrel and the Pied Kingfisher, but harriers, the Blackwinged Kite, fishing eagles and some other birds also frequently indulge in it. Hovering enables the bird to poise itself stationary in mid-air and survey the ground or water below for its prey. It is really a variant of the normal flapping flight but always attained head-to-wing and with an upward tilt of the body axis so as to offer maximum resistance to the lateral current of air. The wings or wing-tips are flapped rapidly to 'tread' the air as it were, and the bird thus remains suspended for many seconds at a time. Hovering flight on rapidly vibrating wings is also seen in the sunbirds as they probe into flower tubes for nectar or search for insects poised in front of a flower. It has reached its perfection among the humming-birds of the New World. In some of these, scarcely larger than a bumble-bee, the wing strokes have been ascertained to be between 20 and 50 per second (1200-3000 per minute!).

Whether it be the effortless, leisurely soaring of the vulture in the firmament or the swishing lightning stoop of the falcon upon its quarry, the loud whirring flush of the startled partridge in the corn-field or the silent ghostly glide of the questing owl in the gloaming, it is all the manifestation of the same remarkable process of evolution that has culminated in the flying bird, raising it as if by a magic wand from the lowly cold-blooded reptile to this bundle of superabundant energy — a graceful and buoyant creature with a mastery of the air that Man, with all his ingenuity and cunning, is never likely seriously to challenge.

BIRD MIGRATION

No resident in India who is even moderately observant can fail to notice the great influx of birds that takes place annually between September and November, or to remark upon their abundance during winter in places where none were to be seen a couple of months before. The species eagerly sought after by the man with the gun — the snipe, duck, geese, cranes and others — together with the hosts of smaller fry that interest him less or not at all — the sandpipers, leaf warblers, larks, wagtails and pipits — all seem to pop up suddenly from nowhere. While this transformation is magical enough to be felt by all, it is doubtful if five persons in a hundred ever stop to ask themselves what brings it about, and how. To the man in the street the birds come at this season simply because it is in the nature of things that they should. Whence they come is not his concern, while why or how they do it is clearly the birds' own affair!

Yet, the subject of Migration is one of the most enthralling branches of the study of bird life. The magnitude of the movements and the regularity and orderliness of their occurrence are no whit less than the cycle of the seasons; they have aroused the wonderment of Man through the ages. The Red Indians of the Fur Countries actually named their calendar months after the arrival of migrant birds. A realistic scientific approach now helps to dispel some of the more fanciful notions, but it must be admitted that many of the phenomena involved continue to remain a mystery and are unlikely to emerge from the realm of speculation.

Until not so long ago there was a widely prevalent belief that small birds such as the swallow, nightingale and cuckoo hibernated like mammals and reptiles to get over unfavourable weather conditions. This notion had held ground since the days of Aristotle, and even that excellent naturalist Gilbert White of Selborne was not immune from the belief that swallows passed the winter buried in mud at the bottom of ponds, whence they emerged with the first signs of returning spring.

What is bird migration?

Landsborough Thomson, an eminent authority, describes bird migration as "Changes of habitat periodically recurring and *alternating in direction,* which tend to secure optimum environmental conditions at all times". The italics are important since it is just this *back and forth* movement that is the crucial feature of the migration of birds. The periodic movements of locust swarms for example, loosely referred to as migrations, are really overflow movements and do not entail a return to the starting point. Thus they differ markedly from the seasonal return traffic of birds. The 'pendulum-swing' movement is noticeable in some other groups of animals as well, but it has reached it rhythmical climax among birds.

Its extent and advantages

On account of their special attributes — warm-bloodedness, feather covering and unparalleled powers of flight — the phenomenon of migration finds its highest development in birds. Although directly they are the least affected of all animals by extremes of heat and cold, it is the difficulties connected with food-getting under adverse winter conditions that compel them to change their quarters or perish. Migration enables birds to inhabit two different areas at the respective seasons most favourable in each. It involves a swing from a breeding or nesting place — the bird's home — to a feeding or resting place — its winter quarters. It is an axiom of nature that birds always nest in the colder portion of their

migratory range. Thus, in the Northern Hemisphere their breeding grounds lie nearer the Arctic or Temperate Zone and their winter quarters nearer the Equator. In the Southern Hemisphere the case is reversed. Although some migration takes place from east to west, its general direction as a whole may be considered as North and South. The movement may vary from no more than a few kilometres — such as from the north Indian plains to a couple of thousand feet up in the Himalayan foothills — to several thousand kilometres either way as is the case with many of our wintering wildfowl. The longest known migratory journey is performed twice each year by the Arctic Tern (*Sterna paradisaea*) which from the Arctic winter travels south, right across the world to the Antarctic summer and back again — a distance of over 17,000 km each way!

A consideration of the various theories to explain the origin of this 'Racial Custom' of migration among birds would here be out of place. But it is worth while to take stock of some of the more obvious as well as the more bewildering facts concerning it. The resultant advantages of migration to birds are self-evident. Absence from high latitudes during the winter enables : (a) avoidance of cold and stormy weather, (b) avoidance of short daylight hours available for search of food, and (c) avoidance of those conditions that bring about a scarcity of food supply, such as freezing of water and snow enshrouding the ground.

The advantages of a return to high latitudes in summer are: (a) availability of suitable and uncongested nesting territories, (b) availability of long hours of daylight for search of food when food is most required for the young, and (c) availability of an abundant food supply following on the luxuriant growth of spring vegetation.

What stimulates a bird to migrate?

The urge to migrate at the appropriate seasons is evoked by both external and internal stimuli. Experiments point to the assumption that one of the primary external stimuli is the variation in day length. The internal stimulus seems to be provided by the state of the reproductive organs which, in the laboratory, can be brought to known stages of maturity by artificial manipulation of day length. The non-existence of the migratory instinct in sterile birds is consistent with this view. Readers interested in the details of Prof. W. Rowan's ingenious experiments on the causative aspects of bird migration are referred to his remarkable book THE RIDDLE OF MIGRATION (1931). Subsequent research has resulted in some modification of the original thesis.

What determines the goal of a migratory journey?
How do birds find the way to this goal?

These are two of the many problems to which satisfactory answers are difficult to find. And the great mass of experimental and observational data that has accumulated within recent years does not advance our knowledge much beyond the stage of conjecture.

In the spring the adult males are the first to arrive on their breeding grounds. They are followed by the adult females, while immature birds that will not breed till the following year bring up the rear. In autumn the order of departure is reversed; the southward journey is performed more leisurely with many stop-overs on the way. The young birds, in many cases not more than a couple of months old, form the vanguard, the adults following later. Now comes the mystery. The young birds have had no previous experience either of the route or the destination, often thousands of miles away, yet they accomplish the journey without undue mortality through accidents and misadventure, and with amazing accuracy. Of the various hypothetical explanations suggested the most convenient seems to be that

this prescience of the goal and route is the expression of an inborn racial custom inherited through countless generations of migrants journeying back and forth year after year, between their breeding grounds and their winter quarters. It is on a par with other vital urges such as building at the appointed season, without previous experience or training, of nests in accordance with the traditional pattern of the species, howsoever complicated their architecture.

Many speculations have been put forward from time to time as to how migratory birds orientate themselves. But it is only within the last few years that ingenious experiments have indicated that day-flying migrants maintain their course from the angle the sun makes with the earth at the appropriate season, while nocturnal migrants are guided by the major constellations of stars. Probability is lent to these findings by the commonly observed fact that in cloudy weather when the sky remains obscured for prolonged periods migrating birds often lose their way.

Accuracy and regularity of returns

Birds not only return to the same general locality for breeding year after year, but often also to the identical nesting site. Once the goal is roughly reached there seems every likelihood that landmarks, imprinted on the senses in some way as the result of previous experience and association, may play their part in guiding old birds to their former haunts with such astonishing precision. The ringing or banding method has now established that in Europe swallows often return not only to the same locality but even to the same building for nesting purposes year after year, covering distances of 2000 km or more each way during the interval. This is the case with many other true migrants as well. And not only do individuals return to the same nesting sites, but they often also come back to the same restricted locality in their winter quarters, year after year.

The great regularity and punctuality, almost to the day, with which migrant birds arrive in a given locality is seen even from the few published records kept over several years by observers residing in different parts of this country. This is all the more amazing, when the enormous distances over which many of the species have to travel are taken into account. A ringed Grey Wagtail (*Motacilla cinerea*) was found to return, presumably from its Himalayan breeding grounds at least 2000 km distant, to a particular lawn in Greater Bombay — no bigger than a badminton court — on almost the exact date in September for five years running. Incoming Orphean warblers (*Sylvia hortensis*) ringed in Kathiawar in September one year were retaken in nets on the self-same acre or two in the same month, almost to the date, in the following year; in one case even in each of three successive years!

Varying status of winter visitors

The status of every migrant to India varies in the different portions of its winter habitat. Take any locality — say Bhopal in central India. A large number of species coming in from across our northern and NW. frontiers in autumn touch Bhopal on the south-bound journey to their winter quarters in peninsular India and Sri Lanka. Some of these stay behind and may be seen in that neighbourhood throughout the cold weather. These will be classed here as true winter visitors. Other species make their appearance for a few days at the commencement of the season and then perhaps are not seen again till they are returning northward at the beginning of the hot weather. These are the passage migrants. Others again may be seen on their southward journey in autumn but not on the return, since some species habitually travel to and from their winter quarters by different routes. Thus, while

these are autumn passage migrants in Bhopal, they are spring passage migrants in another part of the country. Similarly some species may pass over Bhopal only on their northward journey in spring and may have the status of autumn passage migrants elsewhere. Again there are birds which though true winter visitors may yet have their numbers vastly augmented by waves of passage migrants from the north or south at the appropriate seasons. The status of these species will therefore be a combination of winter visitor and passage migrant.

Local Migration

In addition to these very extensive movements of migrant birds from beyond our frontiers, there are movements of a similar but perhaps less spectacular kind ceaselessly going on amongst our resident bird populations. The periodical appearances and disappearances of the Paradise Flycatcher, Golden Oriole and Pitta must be obvious to any one with an eye for birds. In northern India and along the base of the Himalayan foothills where the changes of the season are more pronounced than nearer the Equator, these local migratory movements are especially noticeable. The seasonal arrivals and departures of local migrants are no less regular in their cycle than those of the true migratory birds. In some portions of the country one species may be a summer visitor, in another a rains visitor, while in a third locality it may be found only during the winter months. Apart from these regular seasonal shiftings other movements of an even more parochial character are constantly taking place. They are governed by local conditions of heat, drought, or floods, and by their resultant effect upon the available food supply: the flowering season of certain plants, the ripening of certain fruits, and the fluctuation of insect populations.

Under stress of abnormal natural conditions birds are frequently driven out of their accustomed habitats in search of a living and are then met with as stragglers far beyond their normal range.

Thus, practically no square km of the Indian subcontinent is static for any length of time as regards its bird population, and there is an unending chain of comings and goings of species and individuals.

Altitudinal migration

Lastly, mention must be made of altitudinal migration which is particularly marked among species living in the Himalayas. In winter, high elevation birds are forced to descend to lower levels by exigencies of the weather and the descending snow line. With the return of spring when the snow melts and the snow line recedes upwards they re-ascend to breed in the higher hills. These altitudinal movements are not confined to high-elevation birds only, but are indulged in also by species resident at lower altitudes.

Velocity and altitude of migratory flight

Modern devices such as radar, the aeroplane, speed indicators, altimeters and other instruments used in aviation and anti-aircraft gunnery have made it possible to discard the almost fabulous notions formerly held and to arrive at fairly accurate estimates of the speed and height at which migrating birds fly. Velocities naturally vary with species of bird and prevailing meteorological conditions. The average cruising speed of ducks and geese, for instance, has been found to be between 65 and 80 km.p.h. or slightly more. A bird's flying day (or night) ranges from 6 to 11 hours and the following figures are of interest as showing the average km known to be covered in a 'hop': Coot 250 km; Stork 200 km (6 hours); Woodcock 400-480 km; Plover 880 km (11 hours).

Non-stop flights of at least 3200 km across open sea are undertaken by the Eastern Golden Plover (*Pluvialis dominica fulva*) which is a winter visitor to India also. This bird breeds in western Alaska and NE. Siberia and is a regular visitor to the Hawaiian islands. Also the Snipe (*Capella hardwickii*), which breeds only in Japan and spends the winter in E. Australia and Tasmania, must habitually fly 4800 km non-stop over the sea since it has never been met anywhere in between. There are others, especially among the shore birds or waders, that cover enormous stretches without halting for rest or food. A probable example of such a long distance flier in India is the Woodcock (*Scolopax rusticola*) whose nearest breeding place is in the Himalayas. It winters in some numbers in the Nilgiris and other hills of S. India, but is found nowhere in between except as the rarest accidental straggler. The least distance it must normally cover in a single hop, therefore, is about 2400 km. The Pied Ground Thrush (*Zoothera wardii*) travelling by the Eastern Ghats route from the Himalayas to the Nilgiris and on to Sri Lanka probably covers equally long distance non-stop.

It has been believed in the past that migrating birds flew at stupendous heights and that in fact it was of some particular advantage for them to do so — for locating landmarks, minimizing air resistance and in other ways. In actual practice, however, except where lofty mountain barriers have to be crossed, they fly chiefly under 400 m and only rarely over 900 m above the ground. Some species indeed habitually fly much lower, especially over the surface of the sea where they have no trees and similar obstacles to avoid. Nevertheless, that a considerable amount of migration does take place at unsuspected heights has recently been revealed by radar which has registered flocks of migrating birds at over 7500 metres without there being any apparent physical compulsion for them to fly at that great height.

Considering the gigantic scale on which bird migration takes place in India, the scantiness of our factual knowledge of every aspect of it is deplorable. Only the broad pattern is known, and that largely from rather disconnected observational records aided by reasonable conjecture. The major traffic from and to northern lands (E. Europe, northern and central Asia) in autumn and spring each year seems to take place at both ends of the Himalayan chain mainly through the valleys of the Indus and Brahmaputra rivers. The migrational streams of land birds converge down the two sides of the Peninsula weakening in species as well as numbers as they advance southward, and trickle over into Sri Lanka, which virtually forms the terminal. But evidence procured by individual mountaineers and successive Himalayan expeditions indicates that many species, particularly of ducks and geese, also fly directly across the mountain barrier often at heights of 3000 to 5200 m, and even to 6000 m, thereby shortening their journeys very considerably.

That birds *can* fly at immense heights if necessary with little inconvenience from the rarefied air is evident from the fact that one of the Everest Expeditions met crows and mountain finches about their camp at 7000 m and Griffon Vultures and Lammergeier between 6000 and 7000 m, while choughs followed the climbers, quite effortlessly and with capacity for flight undiminished, even up to 8200 m, an altitude at which the atmosphere is reduced to only one third its supporting power! On his successful Everest climb in 1953 Sir Edmund Hillary saw a chough following him at 8500 m — presumably one of the several birds that scavenged daily round their camp at 7900 m.

Bird ringing

Apart from the purely observational method of bird migration study, which to be of real scientific value entails an unbroken continuity of careful records over prolonged periods, the method of 'ringing' birds has in recent years been very extensively and profitably employed in Europe and America for collecting factual data. Bird ringing — or 'banding' as it is called in

the U.S. — consists of fastening a light aluminum ring of appropriate size, stamped with a number and return address, to the instep region or tarsus of a trapped or netted bird, or of a young bird before it leaves the nest. A detailed record is kept in a special register, and the bird is then released. A small percentage of these ringed birds are subsequently shot or recaptured in distant places, and the rings returned or their inscription communicated to the marking station with data as to the exact locality where recovered, date and other particulars. When a large number of such recovery records have been obtained, it is possible gradually to build up accurate knowledge of the routes followed on migration by different species, and a number of other important facts impossible to ascertain in any other way. Thus, the ringing of White Storks in West Germany and East Prussia has established that the East Prussian birds migrate to Africa by a south-eastern route through the Balkans, whereas the West German storks travel by a south-western route through Spain. It was by means of a German-ringed stork accidentally recovered in Bikaner that we now know that some at least of the White Storks that visit us in winter are 'Made in Germany'. Very little bird ringing had been done in India prior to 1958, and mainly of migratory ducks. The recoveries, meagre as they were, nevertheless furnished our only positive evidence for the central Asian and Siberian provenance of our winter visitors. Since 1959 the Bombay Natural History Society has conducted an organized field project for ringing other birds besides wildfowl, mostly small passerines. Its rings bear the legend 'Inform Bombay Nat. Hist. Society'. Apart from determining the geographical origins and routes of the various species, the object is to investigate whether, and to what extent, migratory birds are responsible for the dissemination of virus diseases of man and animals through the agency of ticks and other blood-sucking parasites. The few ring recoveries so far reported are of the greatest interest and significance since they indicate the routes followed by the birds to and from their breeding grounds. For example Yellow Wagtails (*Motacilla falva beema* and *M .f. thunbergi*) ringed in Kerala during winter were recovered on passage in Kabul, Afghanistan, the following spring, and at Bannu, NW. Pakistan, in the succeeding autumn. A Forest Wagtail (*M. indica*) ringed in Kerala in February was killed in the Chin Hills of Myanmar (Burma) in April. Spanish and Turkestan Sparrows (*Passer hispaniolensis transcaspicus* and *P. domesticus bactrianus*) ringed in Bharatpur, Rajasthan, in early spring were recovered on their nesting grounds in Kazakhstan, Russian Turkestan, in summer. The end-paper map shows some of the more important recent recoveries.

The use of plastic rings of different colours by which individuals may be recognised at a distance without the necessity of recapture, has, in recent years, yielded valuable information concerning the life history and local movements of more or less resident or sedentary birds.

Those who would like to pursue the study of bird migration literature further, will find the following books in English useful and interesting:

1. PROBLEMS OF BIRD MIGRATION. By A. Landsborough Thomson (H.F. & G. Witherby, London, 1926).
2. BIRD MIGRATION. By A. Landsborough Thomson (H.F. & G. Witherby, London, 1936).
3. THE MIGRATION OF BIRDS. By Jean Dorst (Heineman, London, 1962). The latest authoritative work collating and summarizing the most important European and American literature to date.

Two excellent periodicals, the first devoted chiefly to international ringing techniques, important recoveries, and general information, the second to research in bird migration, are :

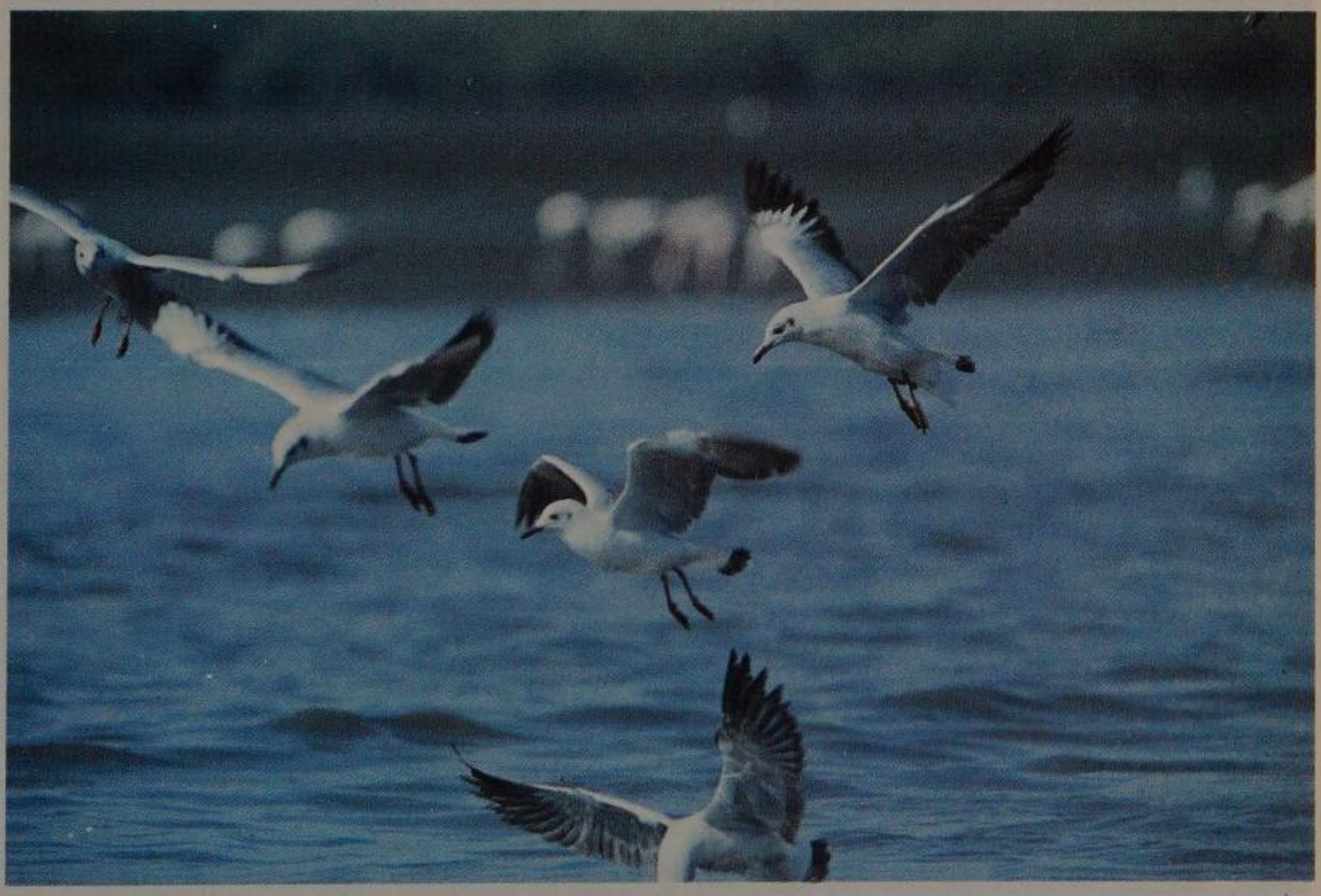
THE RING, published quarterly by the Polish Zoological Society, Warsaw, and

BIRD MIGRATION, published twice a year by The British Trust for Ornithology, Oxford.

PLATE 71

KRUPAKAR-SENANI/PORPOISE PHOTOSTOCK

Whitebreasted Kingfisher caught on the wing by high speed photography



SUNJOY MONGA/PORPOISE PHOTOSTOCK

Blackheaded Gulls in winter plumage

PLATE 72

E.HANUMANTHA RAO/PORPOISE PHOTOSTOCK

Pendulous nest of the Flowerpecker

THE USEFULNESS OF BIRDS

It has been said that birds could exist without man but that man would perish without birds. This observation has been further amplified by the remark that 'But for the trees the insects would perish, but for the insects the birds would perish, but for the birds the trees would perish, and to follow the inexorable laws of Nature to the conclusion of their awful vengeance, but for the trees the world would perish'. An impartial scrutiny of the facts, shows that there is indeed little extravagance in either of these speculations.

As destroyers of insect pests

The variety, fecundity and voracity of insects are unbelievable. Over 30,000 forms have been described from the Indian Region alone — about fifteen times the number of bird species and races — and probably many still remain to be added to the list. Practically all living animals as well as plants furnish food for these incomputable hordes. Many estimates have been made of what a single pair of insects would increase to if allowed unchecked multiplication, and astounding figures have been reaching rivalling in their stupendousness those which we associate with astronominal calculations. A Canadian entomologist has estimated that a single pair of Colorado Beetles or Potato Bugs (*Leptinotarsa decemlineata* — belonging to the prolific family Chrysomelidae of which over 20,000 species are known throughout the world, and which is well represented in India) would, without check, increase in one season to sixty million. Riley computed that the Hop Aphis or Chinch Bug (*Blissus leucopterus*) very destructive to grasses and cereals in America, which develops 13 generations in a single year would, if unchecked, reach ten sextillion individuals at the end of the 12th generation. If this brood were marshalled in line end to end at the rate of 10 per inch, the procession would be so long that light, travelling at the rate of 295000 km per second, would take 2500 years to reach from one end to the other!

A caterpillar is said to eat twice its own weight in leaves per day. Certain flesh-feeding larvae will consume within 24 hours 200 times their original weight. It is reckoned that the food taken by a single silkworm in 56 days equals 86,000 times its original weight at hatching. Locusts are as notorious for their prolific reproduction as for their prodigious appetites. Their swarms are sometimes so thick as to obscure the sun, and such a visitation will, in the course of a few short hours, convert a green and smiling tract into a desolate waste with nothing but bare stems. The female locust lays its eggs in capsules underground, each capsule containing about 100 eggs, and several of these capsules are laid by each individual. On a farm in South Africa measuring 1335 ha, no less than 14 tons of eggs have been dug up at one time, estimated to have produced 1250 million locusts. It is evident from their rate of increase that unless insect numbers were kept under constant and rigid check, it would not be long before all vegetation vanished completely from the face of the earth.

A large proportion of the normal food of birds consists of insects, including many that are in the highest degree injurious to man and his concerns. Birds of many species not only take heavy toll of the marauding locust hordes all along their flight lines, but also scratch up and devour their eggs in vast quantities, as well as the different stages of the young locust after hatching. The White Stork is a well known locust destroyer, and the enormous nesting colonies of the Rosy Pastor live and feed their young exclusively upon these insects on their common breeding grounds in central Asia. An idea of the extent of good birds do

in destroying insect pests may be had from the fact that many young birds in the first few days of their lives consume more than their own weight of food in 24 hours. A pair of starlings have been observed to bring food (caterpillars, grasshoppers, locusts, etc.) to their nest-young 370 times in a day, and according to Dr. W E Collinge, the well known British authority, House Sparrows bring food (caterpillars, soft-bodied insects, etc.) from 220 to 260 times per day. A German ornithologist has estimated that a single pair of tits with their progeny destroy annually at least 120 million insect eggs or 150,000 caterpillars and pupae. This warfare is waged not only when the insects are at the peak of their periodical abundance, but incessantly, relentlessly, and in all stages of the insects' lives. Therefore, where birds have not been unwisely interfered with, they constitute one of the most effective natural checks upon insect numbers.

As destroyers of other vermin

Owls, kestrels, hawks and the birds of prey generally — so often accused of destructiveness to poultry and game and slaughtered out of hand — are amongst the most important of Nature's checks upon rats and mice, some of the most fecund and destructive pests from which man and his works suffer. These vermin do enormous damage to crops and agricultural produce, and are, besides, the carriers directly or indirectly, of diseases often fatal to man. The ravages of the Sind Mole-Rat in the rice-growing tracts of the Indus Delta in Lower Sind have been estimated by a competent investigator as between 10 and 50 per cent of the entire paddy crop. This Mole-Rat breeds throughout the year. The number of young born in a litter is 5 to 10, but in October and November the litters are very large varying from 14 to 18 young each. Mice are equally fecund and destructive.

It has been computed that one pair of house rats having 6 litters of 8 young annually and breeding when 3.5 months old, with equal sexes and no deaths, would increase at the end of the year to 880 rats. At this rate the unchecked increase of a pair in 5 years would be 940,369,969,152 rats. Such calculations, of course, are purely theoretical and their results will never be approached in Nature, but they are not extravagant considering the capacity to reproduce, and are based on moderate and conservative estimates.

It will thus be seen that every pair of rats destroyed by birds means the annual suppression of a potential increase of 880 rats. Many of our owls and diurnal birds of prey feed largely on rats and mice; some of the former, indeed, live more or less exclusively on them. Two or three rats or mice apiece, or their remains, may frequently be found in the stomachs of Horned Owls, for example, and as digestion in birds is a continuous and rapid process it is conceivable that a larger number may be taken in the course of 24 hours. Since these birds are engaged in the good work from year's end to year's end, some estimate of their beneficial activities can be made.

As scavengers

Vultures, kites and crows are invaluable scavengers. They speedily and effectively dispose of carcasses of cattle and other refuse dumped in the precincts of our villages — notoriously lacking in any organised system of sanitation — that would otherwise putrefy and befoul the air and become veritable culture beds of disease. The services of the birds are of special importance during famines and cattle epidemics when large numbers of domestic animals perish and at best are left by the wayside covered with a flimsy layer of earth to be exhumed by the first prowling jackal that happens on the spot. The speed and thoroughness with which a party of vultures will dispose of carrion is astounding.

PLATE 73

RISHAD NAOROJI

A machan hide for observing nesting birds

PLATE 74

KRUPAKAR-SENANI/PORPOISE PHOTOSTOCK

Redwhiskered Bulbul on *Erythrina*

SUNJOY MONGA/PORPOISE PHOTOSTOCK

Whitebacked Vultures at a carcass

As flower-pollination agents

While the importance of bees, butterflies and other insects in the cross-fertilization of flowers is well known, the large part played by birds in the same capacity has not been adequately appreciated. A large number of birds of divers families and species are responsible for the cross-fertilization of flowers, many of them possessing special adaptations in the structure and mechanism of their tongue and bill for the purpose of extracting honey from the base of the flower tubes. Flower-nectar is rich in carbohydrates and provides excellent nutriment, so much so that many of the most highly organised flower-birds subsist more or less exclusively on this diet. In trying to reach the nectar, the forehead or throat of the bird comes into contact with the anthers. The ripe golden pollen dust adheres to the feathers and is transported to the mature stigma of the next flower visited, which it thus fertilizes. It is little realised how largely responsible birds are for the success of the present-day safety match industry in India. Of all the indigenous softwoods that have been tried in the manufacture of matches that of the Silk Cotton tree has been found to be the most satisfactory as regards quality, abundance and accessibility. The large showy crimson flowers of this tree serve as a sign-post to invite the attention of the passing bird. They contain a plentiful supply of sugary nectar, which is eagerly sought by birds of many kinds — over 60 different species have been noted in one small area alone — and are mainly cross-pollinated through their agency. Birds thus contribute to the production of fertile seed and the continuance of healthy generations of the tree, and incidentally to the supply of raw material for your box of matches. A careful scrutiny would reveal that we are ultimately dependent upon birds in this House-that-Jack-built sort of way for many more of our every day requirements. The Coral tree (*Erythrina*), which is largely grown for shade in the tea and coffee plantations of South India, is also one whose flowers are fertilized chiefly, if not exclusively, by birds of many species.

As seed dispersers

In the dissemination of seed and the distribution of plant life, birds play a predominant part. Their activities unfortunately, are not always of beneficial character from the economic point of view. No better instance of the extent of their seed-dispersing activities can be cited than that of the lantana weed. This pernicious plant of Mexican origin was first introduced into Sri Lanka for ornamental purposes a little over a century ago. It has since overrun thousands of square miles of the Indian subcontinent, and become the despair of agriculturist and forester alike. Its phenomenal spread within this comparatively short period would have been impossible without the agency of birds, numerous species of which greedily devour the berries which the plant everywhere produces in such overwhelming profusion. A Blackheaded Oriole has been observed swallowing 77 berries in the course of 3 minutes. The seeds pass through the birds' intestines unaffected by the digestive juices, and out with the waste matter in due course. They germinate rapidly under favourable conditions and establish themselves.

Another noxious plant that is entirely bird-propagated is the *Loranthus* (= *Dendrophthoe*) tree-parasite. It belongs to the Mistletoe family, well represented in this country, almost all of whose Indian members are more or less wholly symbiotic with sunbirds, flowerpeckers and other bird species, which both fertilize its flowers and disperse its seeds. Bulbuls and barbets are largely responsible for the dissemination of the seeds of the Sandalwood tree in South India and are welcome in sandalwood plantations. In the newly colonised canal areas of Punjab, the Mulberry owes its abundance mainly to propagation by birds. Experiments have shown that the seeds of such plants as grow on richly manured soil, after passing uninjured through a bird's intestine, actually produce stronger seedlings than those which are cultivated without such treatment.

As food for man

A feature of the larger dhands or jheels in Pakistan and northern India during the cold weather is the magnitude of the netting operations that go on throughout that season for supplying the markets of the larger towns, both near and distant, with wildfowl of every description for the table. The population of the neighbourhood of those jheels subsists during those months more or less exclusively on the flesh of water birds or in the traffic in them. Round every village near a dhand of any size in Sind may be seen little mounds of coot feathers which furnish an indication of the esteem which the bird enjoys as an article of diet. The wildfowl netting operations on the Manchar Lake alone involved, in pre-partition days, a turnover of several thousand rupees annually, besides providing the inhabitants of the neighbourhood with free or almost free sustenance for several months in a year.

Quails, partridges and other game birds are also netted or shot for eating purposes, and innumerable other species of every description are captured and sold in the bazaars to fanciers or exported, yielding substantial returns to those engaged in the trade.

Egret feathers

Until a few years ago egret-farming for the sake of the valuable plumes was a profitable cottage industry and largely practised on the various jheels in Sind. The dainty 'decomposed' breeding plumes of the white egrets — 'aigrettes' as they are known to the trade — were largely exported to Europe for ladies' head dresses, tippets, muffs and for other ornamental purposes. They were almost worth their weight in silver, and brought in handsome profit to the farmers. With the change in ladies' fashions, the demand has happily dwindled considerably, and with it the prices. The working of the Wild Birds and Animals Protection Act of 1912 imposed a further check upon exports, and most of the egret farms have now disappeared.

Birds' nests

There are other minor products of birds which, if properly husbanded could be made to yield sizeable revenue in India. The saliva nests of the so-called Edible-nest Swiftlets (*Collocalia*), which breed in vast colonies in grottoes on rocky islands off the south Myanmar coast were a source of considerable income to those engaged in the trade, and of royalty to government before that country was separated from India — and doubtless still are. These swiftlets also breed on certain islets off the Konkan coast (W. India), but the nests here are of poor quality; the trade in them, which was small even in former years, is now non-existent. The nests were exported to China as an epicurean delicacy, the better qualities fetching from Rs.15 to 30 per kg. The value of nests imported into China during 1923, 1924 and 1925 exceeded Rs.25 lakhs; a fair proportion of these came from the then British Indian Empire.

Guano

Guano which is really the excrement of sea birds such as gannets, cormorants and pelicans is another product of great commercial value. The fertilising properties of the phosphoric acid and nitrogen contained in fish were not recognised until guano became a stimulus to intensive agriculture. The real guano is found in vast stratified accretions on rainless islands off the coast of Peru, and although no deposits of like magnitude or value exist within our limits, yet the possibilities of the 'liquid guano' of colonial-nesting water birds have not been seriously exploited in India.

From all that has been said it must not be assumed that birds are a wholly unmixed blessing. They are injurious to man's interests in a number of ways. They destroy his crops, and damage his orchards, flower beds and vegetable gardens; they devour certain beneficial insects and prey upon fish and other animals useful to man as food; they act as intermediate hosts of parasites and viruses that spread diseases among his livestock, and disperse them far and wide in the course of their migrations; they fertilize the flowers and disseminate the seeds of noxious plants and weeds. Yet, considering everything, there can be no doubt that the good they do far outweighs the harm, which must therefore be looked upon as no more than the labourer's hire.

The case for the protection and conservation of birds in a country like ours — so largely agricultural and forested and therefore at their mercy — is clear, and needs no eloquent advocacy. Quite apart from the purely materialistic aspect, however, it must not be forgotten that man cannot live by bread alone. By the gorgeousness of their plumages and the loveliness of their forms, by the vivaciousness of their movements and the sweetness of their songs, birds typify Life and Beauty. They rank beyond a doubt among those important trifles that supplement bread in the sustenance of man and make living worth while.

BIRD WATCHING

NEARLY every one enjoys birds: the beauty of their forms and colouring, the vivacity of their movements, the buoyancy of their flight and the sweetness of their song. It is precisely on this account that as a pursuit for the out-of-doors, bird watching stands in a class by itself. Its strong point is that it can be indulged in with pleasure and profit not only by the man who studies birds scientifically, but also by one possessing no specialised knowledge. The latter, moreover, is enabled to share his profit with the scientist who for certain aspects of bird study has to depend entirely upon data collected by the intelligent watcher.

The appreciation of the beautiful and the novel is a characteristic latent in the human species. There is none in whom the seed of this faculty is entirely wanting. Environment may nurture and develop it in some, smother it in others. The fact of its existence is proved by the enquiries an ornithologist frequently receives concerning the identity of this bird with a green head or that with a red tail from persons of the most prosaic 'butcher, baker and candlestick-maker' type who in the course of their day to day lives would never dream of going a step out of their way merely to look at a bird. It shows that even such a person, in spite of himself, cannot at one time or another help being struck by some peculiarity in the sight or sound of a bird which had not forced itself on his notice before.

It is amazing what tricks the imagination can play with undisciplined observation. A person who, for example, notices a male Paradise Flycatcher for the first time and is struck by its exquisite tail-ribbons fluttering in the breeze, will, as likely as not, and in all good faith, clothe his bird in multi-coloured hues of green and blue and yellow and red when describing it to you. The only real clue he furnishes is the ribbon tail. Some days later you have an opportunity of pointing out a Paradise Flycatcher to your enquirer with a suitable suggestion, whereupon you promptly learn that this indeed was the object of his ecstasy! Yet it is equally amazing what small effort is needed to discipline oneself to observe accurately. After a comparatively short period of intelligent bird watching one can often become so proficient that the mere glimpse of a bird as it flits across from one bush to another — some distinctive flash of a colour, a peculiar twitch of the tail — is enough to suggest its identity fairly reliably. If it is an unfamiliar species this fleeting impression will often suffice to puzzle it out with the aid of a bird book afterwards.

Apart from the joy and exhilaration it affords, careful and intelligent bird watching — considering that it can be indulged in by the many without special scientific training — widens the scope immensely for procuring data relating to the lives and behaviour of birds. Observations by people who habitually watch birds even merely for pleasure, are often of great value to the scientist trying to unravel some particular phase of bird life. Indeed, such observations — made as they are without knowledge of, or being swayed by this pet theory or that — frequently carry the added advantage of being completely unbiased. As mentioned in a previous chapter the bulk of the work that now remains to be done on the birds of India concerns the *living* bird in its natural surroundings: How does the bird live and behave? In what way is it fitted or is fitting itself to its habitat? How is it influenced by or is influencing its environment? It is only satisfactory answers to questions like these — and their number is legion — that can lead us to a better understanding of that very real but strangely elusive thing called life.

One often hears it asserted that there are no birds in this locality or that. Such statements merely suggest that the observer many not know exactly where and how to look for them.

For indeed it is difficult to imagine a single square mile of the Indian subcontinent entirely devoid of birds. Even in the midst of the scorching Rajasthan desert or amongst the high Himalayan snows, birds there are for those who know how to find them. They may be scarce and local, simple because their food happens to be scarce and local, but they are never entirely absent over areas of any size.

For the new arrival in this country and for the novice, some suggestions as to when and where to look for birds with success might prove helpful. First and foremost, although birds are on the move all day long, their activity is greatest in the early mornings; therefore early rising is a most important pre-requisite for successful watching. Most song is also heard during the early morning hours. Discovering the identity of a songster often entails patient watching, and the chances of tracking him down are naturally greatest in the early morning when the bird is most vocal.

Contrary to the popular notion, a forest, to the inexperienced, is usually a very disappointing place for bird watching. You may tramp miles without seeming to meet or hear a bird, and then just as you begin to despair you may round a bend in the path and suddenly find yourself confronted by a gathering that includes well nigh every species of the neighbourhood. There are birds on every hand: on the ground, among the bushes, on the trunks of the lofty trees and in the canopy of leaves high overhead. There are tits, babblers and tree pies, woodpeckers, nuthatches and drongos, flycatchers, minivets, and leaf warblers, and numerous other species besides. The scene is suddenly transformed into one of bustling activity. You have in fact struck what the books call a 'Mixed Hunting Party', or 'Localised Forest Association'. These mixed assemblages are a characteristic feature of our forests, both hill and plain. Here birds do not as a rule spread themselves out uniformly, but rove about in co-operative bands of mixed species in more or less regular daily circuits. All the members of the association profit through the co-ordinated efforts of the lot. Babblers rummaging amongst the fallen leaves for insect food disturb a moth which is presently swooped upon and captured in mid-air by a drongo on the look-out hard by. A woodpecker scuttling up a tree-trunk in search of beetle galleries stampedes numerous winged insects resting upon the protectingly coloured bark or lurking within its crevices. These are promptly set upon by a vigilant flycatcher or warbler — and so on.

Banyan and peepul trees when in ripe fig attract a multitude of birds of many species from far and wide and offer excellent opportunities to the bird watcher. A lively scene presents itself as party after party arrives, all eager to gorge themselves on the abundance spread around. There is a great deal of noise and chatter as the visitors hop from branch to branch in their quest. Bickering and bullying are incessant, but no serious encounters develop since every individual is much too preoccupied with the main business in hand. Such gatherings are ideal for studying the natural dispositions and 'table manners' of the various species.

Some of the most charming and enjoyable venues for bird watching are certainly afforded by the Silk Cotton, Coral Flower, or Flame-of-the-Forest (*Butea*) trees in bloom. Their particular attractiveness lies in the fact that the trees, or the branches bearing the gorgeous flowers, are bare and leafless at this season, allowing a clear and unobstructed view of the visitors. Almost every small bird of the surrounding countryside flocks to the blossoms for the sake of the sugary nectar which they produce in such abundance. Riot and revelry prevails throughout the day, but especially in the mornings, and there is constant bullying, hustling and mock fighting amongst the roysterers. A pair of good binoculars multiplies the pleasures of bird watching many-fold, and is indeed an indispensable item of the watcher's equipment.

Another favourable occasion is after the first few showers of rain have fallen and the winged termites — the potential queens and their numerous suitors — are emerging from their underground retreats for their momentous nuptial flight. A termite swarm acts like a magnet upon the bird population of its neighbourhood. Caste and creed are forgotten and every species hastens to the repast; no quarter is given, the insects being chased and captured on the ground as well as in the air. The agile and graceful gliding swoops of the swallows and swifts contrast strangely with the ponderous, ungainly efforts of crows making unaccustomed aerial sallies in the pursuit. Kites, kestrels, crows, owlets, mynas and bulbuls, sparrows, bayas and munias, tree pies, drongos and orioles, tailor birds and wren-warblers all join in the massacre, while even woodpeckers and barbets can seldom resist the temptation.

Nesting birds provide much important material for the study of animal behaviour. These can best be studied from a 'hide' erected in the proximity of their nests. A portable 'hide' is easily made with a few iron rods or bamboo poles and some canvas, or one of straw and leafy branches can usually be rigged up on the spot without difficulty. The birds soon get inured to its presence and can be watched from within in comparative comfort and at close quarters. Bird photography adds enormously to the zest of bird watching. Many facts of far-reaching significance concerning nesting habits and sexual behaviour have been brought to light by the careful observations and pictorial evidence of bird photographers. There is no pleasanter way of prolonged and intensive watching than in pursuit of bird photography, and there can be no success in bird photography without patient and intensive watching. Camera studies of birds in their natural surroundings and busy at their normal occupations are a joy not only to their maker, but also to others who have not been fortunate enough to share in his watching. The several attractive photographs reproduced in these pages will bear this out. No one interested in this fascinating pastime should miss the late Lieut.-Col. R S P Bates's informative article on 'Bird Photography in India' published in Volume 40 of the *Journal of the Bombay Natural History Society* (May, 1939).

Useful suggestions for various types of hides and their construction, and other hints for bird photographers will also be found in Book 2 of the BIRDS OF CEYLON by W W A Phillips (1952). Entirely new ground in the photography of birds in India was broken by Loke Wan Tho. By the use of high speed flash equipment he obtained remarkable action pictures at 1/3000 to 1/5000 of a second. The technique is described by him in the Journal of the Bombay Natural History Society, Vol. 50(4) — August 1952.

A north Indian jheel in winter is a veritable paradise for the bird watcher. Every species of water bird, as well as those that live about the margins and in the marshy reed-beds, may be met here, and an unique opportunity is afforded of getting acquainted with them. It is an exhilarating experience, even for one who is not a shikari to drift along in a punt over the placid water on a cold morning with the din of honking, quacking and trumpeting on every hand, and the fluttering and swishing of wings of countless wildfowl overhead. The multitudes of the birds, apart from their great variety, leave a picture on the mind that is not easily lost.

It must not be supposed that this list exhausts the possibilities for bird watching in India. Indeed pleasure can be derived from the most everyday birds in the most humdrum surroundings, and even the jaded city dweller can regale his leisure hours without the necessity of going far afield in search of special opportunities. Birds can be attracted to our homes and gardens without any great difficulty by the provision of suitable feeding trays, baths, and nesting boxes. These simple and inexpensive appliances not only add charm and ornament to the garden but they soon engender that friendliness and confidence in the bird visitors which is so essential for their enjoyment at close quarters.

An excellent pamphlet — Field Guide No.3: Nestboxes — has been published by the British Trust for Ornithology, Oxford. It gives particulars and diagrams of many types of nestboxes, and all relevant information concerning their use.

Everyone who watches birds intelligently enough to enjoy them, and who carries with him a note book and pencil, should be in a position to contribute in some measure to our store of knowledge. The essentials are Patience, plus the ability to observe accurately and to record faithfully, even though the observations may sometimes disagree with the books or the observer himself may sometimes wish things to happen differently!

Above all it is important that sentimentality be kept in check and to remember at all times that the behaviour of birds cannot be interpreted entirely by human analogy. Birds do not possess the power of reasoning; therefore their actions, however intelligent they may seem, are essentially little more than instinctive reflexes.

All unusual or original field observations are worthy of permanent record since they are the bricks of which ornithological structures are built. To test the value of your notes they should be offered for publication to the Newsletter for Birdwatchers, the bimonthly bulletin of the Birdwatchers' Field Club of India which was formed in 1959: (address: Mr Zafar Futehally, Editor, Newsletter for Bird Watchers, 2205, Oakwood, 8th Main, III Block, Koramangala, Bangalore 560 034) or — if of a more technical character — the Journal of the Bombay Natural History Society. Amateur bird watchers as well as seasoned ornithologists will find it profitable in many practical ways to belong to either or both these separate organizations. Membership terms can be obtained from the respective honorary secretaries.

Books to read:

1. A GUIDE TO BIRD WATCHING. By Joseph J. Hicky. (Oxford University Press, 1943).
2. HOW TO STUDY BIRDS. By Stuart Smith. (Collins, 1945)
3. WATCHING BIRDS. By James Fisher. (Pelican Books, 1946).
4. BIRD WATCHING AS A HOBBY. By W. D. Campbell. (Stanley Paul, London, 1959).
5. ABOUT INDIAN BIRDS. By Laeeq Futehally and Sálim Ali. (Blackie, Bombay, 1959).
6. WATCHING BIRDS. By Jamal Ara. (National Book Trust, India, 1970)

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
A	
Avadavat or Red Munia	(64) 526
Avocet	(22) 194
B	
Babbler, *Chestnutcapped*	(52) 414
_____, Common	(53) 416
_____, *Indian Scimitar*	(52) 411
_____, Jungle	(53) 421
_____, Large Grey	(53) 419
_____, *Puff throated*	(52) 410
_____, Quaker	(52) 432
_____, Redcapped	(52) 414
_____, Rufous	(53) 420
_____, Rufousbellied	(52) 412
_____, Slatyheaded Scimitar	(52) 411
_____, Slenderbilled	(53) 418
_____, Spotted	(52) 410
_____, Striated	(53) 417
_____, *Striped Tit*	(52) 413
_____, *Tawnybellied*	(52) 412
_____, Whiteheaded	(53) 422
_____, Yellowbreasted	(52) 413
_____, Yelloweyed	(52) 415
Barbet, Bluethroated	(41) 312
_____, *Brownheaded*	(41) 309
_____, *Coppersmith*	(40) 314
_____, Crimsonbreasted	(40) 314
_____, *Crimsonfronted*	(40) 313
_____, Crimsonthroated	(40) 313
_____, *Great*	(41) 308
_____, Himalayan Great	(41) 308
_____, Large Green	(41) 309
_____, Lineated	(41) 310
_____, Small Green	(41) 311
_____, *Whitecheeked*	(41) 311
Baya, Finn's	(64) 535
Baza, *Black*	(11) 73
____, Blyth's or Brown Lizard Hawk	(11) 72
____, Indian Blackcrested	(11) 73
____, *Jerdon's*	(11) 72

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Bee-eater, Bluebearded	(38) 296
_____ , Bluecheeked	(38) 293
_____ , Bluetailed	(38) 294
_____ , Chestnutheaded	(38) 292
_____ , Small Green	(38) 295
Bittern	(4) 28
_____, Black	(4) 27
_____, Chestnut	(4) 25
_____, *Cinnamon*	(4) 25
_____, *Great*	(4) 28
_____, Little	(4) 24
_____, Little Green	(3) 15
_____, Tiger	(4) 23
_____, Yellow	(4) 26
Blackbird	(60) 492
_____ , *Eurasian*	(60) 492
Blue Bird, *Asian Fairy*	(50) 397
_____ , Fairy	(50) 397
Bluethroat	(59) 472
Broadbill, Longtailed	(42) 327
Bulbul, Black	(51) 409
_____, *Blackcrested*	(50) 400
_____, Blackheaded	(50) 398
_____, Blackheaded Yellow	(50) 400
_____, Greyheaded	(50) 399
_____, *Himalayan*	(51) 403
_____, Redvented	(51) 404
_____, Redwhiskered	(51) 402
_____, Rubythroated	(50) 401
_____, *Striated*	(51) 405
_____, Striated Green	(51) 405
_____, *White-eared*	(51) 403
_____, Whitebrowed	(51) 407
_____, Whitecheeked	(51) 403
_____, Yellowbrowed	(51) 408
_____, Yellowthroated	(51) 406
Bustard, Great Indian	(21) 153
_____, Houbara	(21) 154
_____, *Indian*	(21) 153
Bunting, Blackheaded	(64) 535
_____ , Crested	(64) 538
_____ , *House*	(64) 537

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Bnting , Redheaded	(64) 536
_____ , Striolated	(64) 537
Buzzard	(12) 82
_____ , *Common*	(12) 82
_____ , Honey	(11) 74
_____ , Longlegged	(12) 81
_____ , *Oriental Honey*	(11) 74
_____ , White-eyed	(12) 83

C

Chat, Blue	(59) 474
___ , Brown Rock	(59) 478
___ , Collared Bush or Stone Chat	(59) 479
___ , *Indian*	(59) 478
___ , Isabelline	(60) 484
___ , Jerdon's Bush	(59) 482
___ , Pied Bush	(59) 481
___ , White-tailed Bush or Stone Chat	(59) 480
Chloropsis, Goldfronted or Green Bulbul	(50) 395
_____ , Goldmantled	(50) 396
Cisticola, Zitting	(57) 452
Coot	(20) 152
Cormorant, *Great*	(1) 6
_____ , *Indian*	(1) 7
_____ , Large	(1) 6
_____ , Little	(1) 8
Coucal, *Greater*	(33) 255
_____ , Lesser	(33) 256
Courser, Indian	(23) 198
_____, Jerdon's or Doublebanded	(23) 199
Crake, Baillon's	(20) 146
____ , Brown	(20) 147
____ , Little	(20) 145
____ , *Slatylegged*	(20) 144
____ , Slatylegged Banded	(20) 144
Crane, Common	(19) 139
____ , Demoiselle	(19) 142
____ , Sarus	(19) 140
____ , Siberian or Great White	(19) 141
Creeper, Spotted Grey	(61) 498

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Crow, House	(48) 380
____, Jungle	(48) 381
Crow Pheasant or Coucal	(33) 255
Cuckoo	(32) 247
_____ , *Chestnutwinged*	(32) 243
_____ , Common Hawk, or Brainfever Bird	(32) 245
_____ , *Greybellied*	(32) 249
_____ , Indian	(32) 246
_____ , Indian Baybanded	(32) 248
_____ , Indian Drongo	(33) 250
_____ , Pied	(32) 244
_____ , Pied Crested	(32) 244
_____ , Plaintive	(32) 249
_____ , Redwinged Crested	(32) 243
_____ , Sirkeer	(33) 254
Cuckoo-Shrike, Blackheaded	(49) 387
_____ , Large	(49) 386
Curlew	(24) 170
_____, Stone	(22) 196

D

Darter or Snake-bird	(1) 9
_____ , *Oriental*	(1) 9
Dollar Bird	(38) 299
Dove, *Barred Cuckoo*	(30) 229
____, Bar-tailed Cuckoo Dove	(30) 229
____, Emerald or Bronzewinged	(30) 235
____, *Eurasian Collared*	(30) 231
____, *Laughing*	(30) 234
____, Little Brown	(30) 234
____, *Oriental Turtle*	(30) 230
____, *Red Collared*	(30) 232
____, Red Turtle	(30) 232
____, Ring	(30) 231
____, Rufous Turtle	(30) 230
____, Spotted	(30) 233
Drongo, Black, or King Crow	(46) 356
_____ , Bronze	(46) 360
_____ Crowbilled	(46) 359
_____ , Grey or Ashy	(46) 357
_____ , Haircrested	(46) 361

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Drongo, Racket-tailed	(46) 362
____ , Whitebellied	(46) 358
Duck, Brahminy	(7) 47
____ , Burmese Spotbill	(8) 53
____ , Comb Duck or Nukta	(7) 67
____ , *Greater Scaup*	(10) 65
____ , Pinkheaded	(9) 60
____ , Pintail	(8) 50
____ , Scaup	(10) 65
____ , Spotbill or Grey	(8) 52
____ , Tufted	(10) 64
____ , Whitewinged Wood	(7) 68
Dunlin	(26) 188

E

Eagle, Black	(13) 93
____ , *Booted*	(13) 87
____ , Crested Serpent	(13) 108
____ , Greater Spotted	(12) 91
____ , *Greyheaded Fish*	(14) 96
____ , Greyheaded Fishing	(14) 96
____ , Imperial	(12) 89
____ , Lesser Spotted	(12) 92
____ , Pallas's or Ringtailed Fishing	(14) 95
____ , *Pallas's Sea*	(14) 95
____ , *Rufousbellied*	(13) 88
____ , Short-toed Eagle	(13) 107
____ , Tawny	(12) 90
____ , *Whitebellied Fish*	(14) 94
____, Whitebellied Sea	(14) 94
Egret, Cattle	(3) 18
____ , *Great*	(2) 14
____ , Large	(2) 14
____ Little	(3) 20
____ , Median or Smaller	(3) 19
____ , *Western Reef*	(3) 21

F

Falcon, *Amur*	(16) 118
____ , Lagger	(16) 112
____ , Peregrine	(16) 113

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Falcon, Redlegged	(16) 118
_____ , *Rednecked*	(16) 117
_____ , Shaheen	(16) 114
Falconet, *Collared*	(16) 110
_____ , *Pied*	(16) 111
_____ , Redbreasted	(16) 110
_____ , Whitelegged or Pied Pygmy	(16) 111
Flamingo	(6) 41
_____ , *Greater*	(6) 41
_____ , Lesser	(6) 42
Florican, Bengal	(21) 155
_____ , Lesser	(21) 156
Flowerpecker, Firebreasted	(62) 512
_____ , *Palebilled*	(62) 509
_____ , Plaincoloured	(62) 510
_____ , Scarletbacked	(62) 511
_____ , Thickbilled	(62) 508
_____ , Tickell's	(62) 509
Flycatcher, *Asian Brown*	(55) 434
_____ , *Asian Paradise*	(56) 450
_____ , Black and Orange	(55) 439
_____ , *Black and Rufous*	(55) 439
_____ , Blacknaped Blue	(56) 451
_____ , *Blacknaped Monarch*	(56) 451
_____ , Bluethroated	(56) 443
_____ , Brooks's	(55) 442
_____ , Brown	(55) 434
_____ , Brownbreasted	(55) 435
_____ , Greyheaded	(56) 447
_____ , *Greyheaded Canary*	(56) 447
_____ , Nilgiri Verditer	(56) 446
_____ , *Palechinned Blue*	(55) 442
_____ , Paradise	(56) 450
_____ , Redbreasted	(55) 437
_____ , Rufoustailed	(55) 436
_____ , *Rustytailed*	(55) 436
_____ , Tickell's Blue	(56) 444
_____ , *Ultramarine*	(55) 438
_____ , Verditer	(56) 445
_____ , Whitebellied Blue	(55) 441
_____ , Whitebrowed Blue	(55) 438
_____ , Whitebrowed Fantail	(56) 448
_____ , Whitespotted Fantail	(56) 449

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Flycatcher-Shrike, *Barwinged*	(49) 383
_____, Pied	(49) 383
Francolin, Black	(18) 120
_____, *Grey*	(18) 122
_____, *Painted*	(18) 121
_____, *Swamp*	(18) 123

G

Gadwall	(9) 55
Godwit, Bartailed	(24) 172
_____, Blacktailed	(24) 171
Goosander or Eastern Merganser	(10) 70
Goose, Barheaded	(7) 44
_____, Cotton Pygmy	(10) 66
_____, Greylag	(7) 43
Goshawk, Crested	(11) 78
Grassbird, Bristled	(58) 461
_____, Striated	(58) 462
Grebe, Greatcrested	(1) 1
____, Little Grebe or Dabchick	(1) 2
Greenshank	(25) 176
Gull, Blackheaded	(27) 206
___, Brownheaded	(27) 205
___, Great Blackheaded	(27) 204
___, Herring	(27) 202
___, Lesser Blackbacked	(27) 203
___, *Yellowlegged*	(27) 202

H

Harrier, Marsh	(14) 106
_____, Montagu's	(14) 104
_____, Pale	(14) 103
_____, Pied	(14) 105
Hawk-Eagle, Bonelli's	(13) 86
_____, Booted	(13) 87
_____ *Changeable*	(13) 85
_____, Crested	(13) 85
_____, Hodgson's or Feathertoed	(13) 84
_____, *Mountain*	(13) 84
_____, Rufousbellied	(13) 88

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Heron, Chinese Pond	(3) 17
_____, Giant	(2) 11
_____, *Goliath*	(2) 11
_____, Great Whitebellied	(2) 10
_____, Grey	(2) 12
_____, *Indian Pond*	(3) 16
_____, Indian Reef	(3) 21
_____, Little Green	(3) 15
_____, *Malayan Night*	(4) 23
_____, Night	(3) 22
_____, Pond or Paddy Bird	(3) 16
_____, Purple	(2) 13
_____, *Striated*	(3) 15
_____, *Whitebellied*	(2) 10
Hobby	(16) 115
_____, *Eurasian*	(16) 115
_____, Oriental	(16) 116
Hoopoe	(38) 300
_____, *Eurasian*	(38) 300
Hornbill, Common Grey	(39) 301
_____, *Great*	(39) 307
_____, Great Pied	(39) 307
_____, *Indian Grey*	(39) 301
_____, Indian Pied	(39) 305
_____, Malabar Grey	(39) 302
_____, Malabar Pied	(39) 306
_____, *Oriental Pied*	(39) 305
_____, Rufousnecked	(39) 303
_____, Wreathed	(39) 304

I

Ibis, Black	(6) 38
__, *Blackheaded*	(6) 37
__, Glossy	(6) 39
__, *Rednaped*	(6) 38
__, White	(6) 37
Iora	(50) 393
___, Marshall's	(50) 394
___, *Whitetailed*	(50) 394

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

Plate() & Species Sl.No.

J

Jaçana, Bronzewinged ..... (20) 158
_____, Pheasant-tailed ..... (20) 157
Junglefowl, Grey ..... (18) 134
_____ , Red ..... (18) 133

K

Kestrel ..... (16) 119
_____, *Common* ..... (16) 119
Kingfisher, *Blackbacked* ..... (37) 286
_____ , Blackcapped ..... (37) 290
_____ , Blue-eared ..... (37) 285
_____ , Bownheaded Storkbilled ..... (37) 287
_____ , *Collared* ..... (37) 291
_____ , *Common* ..... (37) 284
_____ , Pied ..... (37) 283
Kingfisher, Ruddy ..... (37) 288
_____ , Small Blue ..... (37) 284
_____ , Threetoed ..... (37) 286
_____ , White Collared ..... (37) 291
_____ , Whitebreasted ..... (37) 289
_____ , *Whitethroated* ..... (37) 289
Kite, Blackwinged ..... (11) 71
___ , *Black* ..... (11) 75
___ , Brahminy ..... (11) 76
___ , Common Pariah ..... (11) 75
Koel ..... (33) 251
___ , *Asian* ..... (33) 251

L

Lapwing, Redwattled ..... (23) 161
_____, Whitetailed ..... (23) 160
_____, Yellowwattled ..... (23) 163
Lark, *Ashycrowned Sparrow* ..... (43) 334
___ , Blackbellied Finch ..... (43) 334
___ , Bush ..... (42) 332
___ , Crested ..... (43) 338
___ , *Greater Short-toed* ..... (43) 336
___ , *Indian* ..... (42) 333

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Lark, *Indian Short-toed*	(43) 337
___ , Indian Small Sky	(43) 340
___ , *Oriental Sky*	(43) 340
___ , Redwinged Bush	(42) 333
___ , *Rufoustailed*	(43) 335
___ , Rufoustailed Finch	(43) 335
___ , *Rufouswinged*	(42) 332
___ , Sand	(43) 337
——, Short-toed	(43) 336
——, Singing Bush	(42) 331
——, Sykes's Crested	(43) 339
___ , *Tawny*	(43) 339
Laughing Thrush, Blackgorgetted	(54) 424
_____ , *Greater Necklaced*	(54) 424
_____ , Kerala or Jerdon's	(54) 428
_____ , *Lesser Necklaced*	(54) 423
_____ , Necklaced	(54) 423
_____ , Nilgiri	(54) 427
_____ , Whitecrested	(54) 425
Laughing Thrush, Wynaad	(54) 426
_____ , *Yellowthroated*	(54) 426
Leafbird, Bluewinged	(50) 396
_____ , *Goldenfronted*	(50) 395
Leiothrix, Redbilled	(53) 430
Lorikeet	(31) 242

M

Magpie, *Goldenbilled Blue*	(48) 376
_____ , Green	(48) 375
_____ , Yellowbilled Blue	(48) 376
Magpie Robin	(59) 475
_____, *Oriental*	(59) 475
Malkoha, *Bluefaced*	(33) 253
_____ , *Greenbilled*	(33) 252
_____ , Large Greenbilled	(33) 252
_____ , *Sirkeer*	(33) 254
_____ , Small Greenbilled	(33) 253
Mallard	(9) 54
Martin, Dusky Crag	(44) 341
_____, House	(44) 347

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Merlin, Redheaded	(16) 117
Mesia, Silvereared	(52) 429
Minivet, Longtailed	(49) 389
_____, Rosy	(49) 390
_____, Scarlet	(49) 388
_____, Small	(49) 391
_____, Whitebellied	(49) 392
Moorhen, *Common*	(20) 150
_____, Indian	(20) 150
_____, Purple	(20) 151
Munia, Blackheaded	(64) 533
_____, *Blackthroated*	(64) 531
_____, Green	(64) 528
_____, Red or Avadavat	(64) 527
_____, Rufousbellied	(64) 531
_____, *Scalybreasted*	(64) 532
_____, Spotted	(64) 532
_____, Whitebacked	(64) 530
_____, *Whiterumped*	(64) 530
_____, Whitethroated	(64) 529
Myna, Bank	(47) 371
____, Brahminy or Blackheaded	(47) 366
___, Goldcrested	(47) 373
____, *Goldencrested*	(47) 373
____, Greyheaded	(47) 365
____, Hill	(47) 374
____, Indian	(47) 370
____, Jungle	(47) 372
____, Pied	(47) 369

N

Nightjar, Common Indian	(36) 274
_____, Franklin's or Allied	(36) 275
_____, *Grey*	(36) 272
_____, Jungle	(36) 272
_____, *Largetailed*	(36) 273
_____, Longtailed	(36) 273
_____, *Savanna*	(36) 275
Niltava, Rufousbellied	(55) 440
Nuthatch, Chestnutbellied	(61) 496
_____, Velvetfronted	(61) 497

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
O	
Oriole, Blackheaded	(45) 354
_____, *Blackhooded*	(45) 354
_____, Blacknaped	(45) 353
_____, Golden	(45) 352
_____, Maroon	(45) 355
_____, *Slenderbilled*	(45) 353
Osprey	(14) 109
Owl, Barn or Screech	(34) 257
___ , Bay	(35) 271
___ , Brown Fish	(34) 264
___ , Brown Hawk	(35) 266
___ , Brown Wood	(34) 269
___ , Collared Scops	(35) 260
___ , Dusky Horned	(34) 263
___ , *Eastern Grass*	(34) 258
___ , *Eurasian Eagle*	(34) 261
___ , *Eurasian Scops*	(35) 259
___ , Forest Eagle	(34) 262
___ , Grass	(34) 258
___ , Indian Great Horned	(34) 261
___ , *Indian Scops*	(35) 260
___ , Mottled Wood	(34) 268
___ , Scops	(35) 259
___ , Shorteared	(35) 270
___ , *Spotbellied Eagle*	(34) 262
Owlet, Barred Jungle	(35) 265
____ , Spotted	(35) 267
Oystercatcher	(22) 159
P	
Parakeet , Alexandrine or Large Indian	(31) 236
_____, Blossomheaded	(31) 239
_____, Bluewinged	(31) 241
_____, Himalayan Slatyheaded	(31) 240
_____, Indian Redbreasted	(31) 238
_____, *Malabar*	(31) 241
_____, *Plumheaded*	(31) 239
_____, Roseringed	(31) 237
_____, *Vernal Hanging*	(31) 242

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Partridge, Black	(18) 120
_____, Grey	(18) 122
_____, Painted	(18) 121
_____, Swamp	(18) 123
Pastor, Rosy	(47) 367
Peafowl, Common	(18) 135
_____, *Indian*	(18) 135
Pelican, Dalmatian	(2) 5
_____, *Great White*	(2) 3
_____, Spotbilled or Grey	(2) 4
_____, White or Rosy	(2) 3
Petronia, Chestnut shouldered	(63) 522
Piculet, Speckled	(40) 316
Pigeon, Blue Rock	(30) 226
_____, Common Green	(29) 223
_____, Green Imperial	(29) 224
_____, Greyfronted Green	(29) 221
_____, Kokla or Wedgetailed Green	(29) 220
_____, Maroonbacked Imperial	(29) 225
_____, *Mountain Imperial*	(29) 225
_____, Nilgiri Wood	(30) 227
_____, Orangebreasted Green	(29) 222
_____, *Palecapped*	(30) 228
_____, Pintailed Green	(29)219
_____, Purple Wood Pigeon	(30) 228
_____, *Yellowfooted Green*	(29) 223
Pipit, Brown Rock	(61) 500
___ , Indian Tree	(61) 501
___ , *Longbilled*	(61) 500
___ , Paddyfield	(61) 499
Pitta, Bluenaped	(42) 328
——, Hooded or Greenbreasted	(42) 330
——, Indian	(42) 329
Plover, Blackbellied or Grey	(23) 164
_____, Crab	(22) 195
_____, Collared Swallow	(23) 200
_____, Golden	(23) 165
_____, Great Stone	(22) 197
_____, Kentish	(26) 167
_____, Lesser Sand	(26) 168
_____, Little Ringed	(26) 166
_____, Spurwinged	(22) 162
_____, Swallow	(23) 201

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Pochard, Common	(10) 62
_____ , *Ferruginous*	(10) 63
_____ , Redcrested	(9) 61
_____ , Tufted	(10) 64
_____ , White-eyed	(10) 63
Pratincole, Large Indian	(23) 200
_____ , Small Pratincole	(23) 201
Prinia, Ashy	(57) 456
_____, *Graceful*	(57) 458
_____, *Greybreasted*	(57) 453
_____, *Jungle*	(57) 457
_____, *Plain*	(57) 455
_____, *Rufous*	(57) 454

Q

Quail, *Barred Button*	(17) 138
____ , Blackbreasted or Rain	(17) 125
____ , Bluebreasted	(17) 126
____ , Common or Bluelegged Bustard	(17) 138
____ , Common or Grey	(17) 124
____ , *Himalayan*	(18) 132
____ , Indian or Yellowlegged Button	(17) 137
____ , Jungle Bush	(17) 127
____ , Little Bustard	(17) 136
____ , Mountain	(18) 132
____ , Painted Bush	(17) 129
____ , Rock Bush	(17) 128
____ , *Small Button*	(17) 136

R

Rail, Indian Bluebreasted Banded	(20) 143
Raven	(48) 382
_____, *Common*	(48) 382
Redshank	(25) 174
_____, Spotted or Dusky	(25) 173
Redstart, Black	(59) 477
Robin, Indian	(60) 485
Roller, Blue Jay	(38) 298
____ , Broadbilled	(38) 299
____ , European	(38) 297

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Rosefinch	(64) 534
Ruby throat	(59) 473
Ruff and Reeve	(26) 191

S

Sanderling	(26) 185
_____, *Chestnutbellied*	(29) 216
Sandgrouse, Imperial or Blackbilled	(29) 217
_____, Indian	(29) 216
_____, Painted	(29) 218
Sandpiper, Broadbilled	(26) 190
_____, Common	(25) 179
_____, Curlew	(26) 189
_____, Marsh	(25) 175
_____, Terek or Avocet	(25) 178
_____, Wood or Spotted	(25) 177
Shag, Indian	(1) 7
Shama	(59) 476
_____, *Whiterumped*	(59) 476
Shelduck, Common	(7) 48
_____, Ruddy or Brahminy Duck	(7) 47
Shikra	(11) 77
Shrike, Baybacked	(45) 349
_____, Brown	(45) 351
_____, Grey	(45) 348
Shrike, *Longtailed*	(45) 350
_____, Northern	(45) 348
_____, Rufousbacked	(45) 350
Shrike-Babbler, Whiteheaded	(52) 431
Shoveller	(9) 59
Sibia, Blackcapped	(53) 433
____, *Rufous*	(53) 433
Silverbill, Whitethroated	(64) 529
Skimmer, Indian	(27) 215
Smew	(10) 69
Snipe, Common or Fantail	(24) 182
____, Jack	(24) 183
____, Painted	(24) 192
____, Pintail	(24) 181
Sparrow-Hawk	(11) 79
_____, Besra	(11) 80

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Sparrow, House	(63) 521
_____ , Yellowthroated	(63) 522
Spiderhunter, Little	(63) 518
Streaked	(63) 519
Spoonbill	(6) 40
_____ , *Eurasian*	(6) 40
Spurfowl, Painted	(18) 131
_____ , Red	(18) 130
Stare, Spottedwinged	(47) 364
____, *Spotwinged*	(47) 364
Starling	(47) 368
_____ , *Asian Pied*	(47) 369
_____ , *Brahminy*	(47) 366
_____ , *Chestnut-tailed*	(47) 365
_____ , *Common*	(47) 368
_____ , *Rosy*	(47) 367
Stilt, Blackwinged	(22) 193
Stint, Little	(26) 186
___ , Temminck's	(26) 187
Stork, Adjutant	(5) 35
____ , *Asian Openbill*	(5) 30
____ , Black	(5) 33
____ , *Greater Adjutant*	(5) 35
____ , Lesser Adjutant	(5) 36
____ , Openbill	(5) 30
____ , Painted	(5) 29
____ , White	(5) 32
____ , Whitenecked	(5) 31
____ , *Woolynecked*	(5) 31
Sunbird, *Crimson*	(63) 517
_____ , *Longbilled*	(63) 515
_____ , Maroonbreasted or Loten's	(63) 515
_____ , Purple	(63) 516
_____ , Purplerumped	(63) 513
_____ , Small	(63) 514
_____ , Yellowbacked	(63) 517
Swallow, Common	(44) 342
_____ , *Hill*	(44) 343
_____ , Indian Cliff	(44) 345
_____ , Nilgiri House	(44) 343
_____ , Redrumped or Striated	(44) 346
_____ , *Streak-throated*	(44) 345
_____ , Wiretailed	(44) 344

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Swallow-Shrike, Ashy	(46) 363
Swallow, Ashy Wood	(46) 363
Swamphen, Purple	(20) 151
Swift, Alpine	(36) 277
____, *Asian Palm*	(36) 279
____, Crested Tree	(36) 280
____, House	(36) 278
____, *Little*	(36) 278
____, Palm	(36) 279
Swiftlet, *Indian*	(36) 276
_____, Indian Edible-nest	(36) 276

T

Tailor Bird	(57) 459
Teal, Common	(8) 51
___, Cotton	(10) 66
___, Falcated	(9) 56
___, *Fulvous Whistling*	(8) 46
___, Garganey or Bluewinged	(9) 58
___, Large Whistling	(8) 46
___, Lesser Whistling	(8) 45
___, Marbled	(8) 49
Tern, Blackbellied	(28) 212
___, Caspian	(28) 209
___, Common	(28) 211
___, Gullbilled	(28) 208
___, Indian Whiskered	(28) 207
___, Largecrested	(28) 214
___. Little	(28) 213
___, River	(28) 210
Thick-knee, Eurasian	(22) 196
_____, *Great*	(22) 197
Thrush, Blue Rock	(60) 487
_____, *Bluecapped Rock*	(60) 486
_____, Blueheaded Rock	(60) 486
_____, Himalayan Whistling	(60) 489
_____, Malabar Whistling	(60) 488
_____, Orange-headed Ground	(60) 490
_____, Whitethroated Ground	(60) 491
Tit, *Great*	(61) 493
__, Grey	(61) 493

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Tit, Whitewinged Black	(61) 494
__, Yellowcheeked	(61) 495
Tree Pie	(48) 377
_____, *Grey*	(48) 379
_____, Himalayan	(48) 379
_____, *Rufous*	(48) 377
_____, Whitebellied	(48) 378
Trogon, *Malabar*	(37) 281
_____, Redheaded	(37) 282
_____, Southern	(37) 281
Turnstone	(25) 180

V

Vulture, Black or King	(15) 97
_____, Cinereous	(15) 98
_____, *Egyptian*	(15) 102
_____, *Eurasian Griffon*	(15) 99
_____, Indian Griffon	(15) 99
_____, Indian Longbilled	(15) 100
_____, *Longbilled*	(15) 100
_____, *Redheaded*	(15) 97
_____, White Scavenger or Pharaoh's Chicken	(15) 102
_____, Whitebacked or Bengal	(15) 101
_____, *Whiterumped*	(15) 101

W

Wagtail, Forest	(62) 502
_____, Grey	(62) 505
_____, Large Pied	(62) 507
_____, White	(62) 506
_____, *Whitebrowed*	(62) 507
_____, Yellow	(62) 503
_____, Yellowheaded	(62) 504
_____, *Yellowhooded*	(62) 504
Warbler, Blyth's Reed	(58) 465
_____, Booted	(58) 467
_____, Bristled Grass	(58) 461
_____, *Clamorous Reed*	(58) 464
_____, Dull Green Leaf	(58) 471
_____, Indian Great Reed	(58) 464

INDEX OF SPECIES

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Warbler, Largebilled Leaf	(58) 470
_____, Orphean	(58) 468
_____, Paddyfield	(58) 466
_____, *Pallas's*	(57) 460
_____, Pallas's Grasshopper	(57) 460
_____, Streaked Fantail	(57) 452
_____, Striated Marsh	(58) 462
_____, Thickbilled	(58) 463
Watercock or Kora	(20) 149
Waterhen, Whitebreasted	(20) 148
Weaver Bird, Baya	(64) 523
_____, *Blackbreasted*	(64) 525
_____, Blackthroated	(64) 525
_____, Streaked	(64) 526
_____, *Yellow*	(64) 524
Wheatear, Desert	(60) 483
Whimbrel	(24) 169
White-eye	(53) 520
Whitethroat, Lesser	(58) 469
Wigeon	(9) 57
Woodcock	(24) 184
Woodpecker, Blackbacked	(41) 326
_____, *Blacknaped Flameback*	(41) 320
_____, *Browncapped*	(40) 324
_____, *Common Flameback*	(41) 321
_____, Great Black	(41) 322
_____, Heartspotted	(40) 325
Woodpecker, Indian Goldenbacked Threetoed	(41) 321
_____, Lesser Goldenbacked	(41) 320
_____, *Lesser Yellownape*	(40) 319
_____, Little Scalybellied Green	(40) 318
_____, Pigmy	(40) 324
_____, Rufous	(41) 317
_____, Small yellownaped	(40) 319
_____, *Whitebellied*	(41) 322
_____, *Whitenaped*	(41) 326
_____, *Yellowcrowned*	(40) 323
_____, Yellowfronted Pied or Mahratta	(40) 323
Wood Shrike, Common	(49) 385
_____ , Large	(49) 384
Wren Warbler, Ashy	(57) 456
_____ , Franklin's	(57) 453

Alternate Common Names (ACN) are printed in italics

	Plate() & Species Sl.No.
Wren Warbler, Jungle	(57) 457
_____, Plain	(57) 455
_____, Rufousfronted	(57) 454
_____, Streaked	(57) 458
Wryneck	(40) 315
_____, *Eurasian*	(40 315

BIOGEOGR

OF

IIC ZONES

DIA

1	TRANSHIMALAYAN
2	HIMALAYAN
3	INDIAN DESERT
4	SEMI - ARID
5	WESTERN GHATS
6	DECCAN PENINSULA
7	GANGETIC PLAIN
8	NORTH - EAST INDIA
9	ISLANDS
10	COASTS